R,D,T & E PROGRAMS (R-1) DEPARTMENT OF DEFENSE BUDGET FOR FISCAL YEARS 1988 AND 1989

(U.S.) Department of Defense
Washington, DC

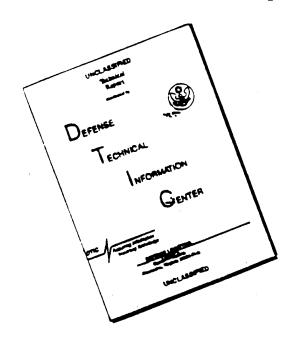
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Approved to:

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DEPARTMENT OF DEFENSE BUDGET FOR FISCAL YEARS 1988 AND 1989

### Preface

The R.D.T.& E. Programs (R-1) exhibit is derived from and consistent with the R.D.T.& E. Annex data base.

The R-1 is provided annually to the DoD oversight committees of the Congress coincident with the transmission by the President of the Budget of the United States Government. An unclassified version is provided to OASD(PA) for use by non-DoD activities.

Office of the Assistant Secretary of Defense

Comptroller

NAVY

# RDT&E PROGRAMS (R-1)

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## TABLE OF CONTENTS

	&       A-    A-1 through A-11
	F-I F-1 through F-15
nse Agencies Defense Agency Summary Defense Agency R-1 Detail	D-I & D-II D-1 through D-5
Director, Test and Evaluation Summary Director, Test and Evaluation R-1 Detail	
Director, Operational Test and Evaluation Summary Director, Operational Test and Evaluation R-1 Detail	8-Q 6-Q
Individual Defense Agency R-1 Detail	D-10 through D-23

Department of Defense FY 1989 R D T & E Program

Exhibit R-1

	Summary			Date: Fo	Date: February 1988
				Thousands of Dollars	of Dollars
	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED FY 1989
Summary By Appropriation					
Research Development Test & Eval Army	4,699,035	4,670,659	5,972,845	-942,145	5,030,700
Research Development Test & Eval Navy	9,292,433	9,512,917	10,044,819	-828,619	9,216,200
Research Development Test & Eval AF	15,050,523	15,165,388	17,728,571	-2,796,471	14,932,100
Research Development Test & Eval Def Ag	6,768,110	7,661,825	10,120,664	-1,452,864	8,667,800
Director of Test & Eval Defense	119,906	182,116	186,128	-19,228	166,900
Director of Operational Test & Evaluation	11,300	70,221	149,657	-6,257	143,400,
Total Research, Development, Test & Evaluation	35,941,307	37,263,126	44,202,684	-6,045,584	38,157,100
Summary Recap of Research Categories					
Research	893,587	901,403	982,808	-69,322	916,486
Exploratory Development	2,343,208	2,392,306	2,657,515	-296,644	2,360,871
Advanced Development	10,426,308	12,445,534	16,047,465	-4,873,317	11,174,148
Engineering Development	9,340,599	9,640,526	12,971,785	-1,384,299	11,587,486
Management and Support	2,942,697	2,513,750	2,764,294	-204,541	2,559,753
Research and Development (FYDP Program 6)	25,946,399	27,893,519	35,426,867	-6,828,123	28,598,744
Operational Systems Development	9,994,908	9,369,607	8,775,817	782,539	9,558,356
Total Research, Development, Test & Bvaluation	35,941,307	37,263,126	44,202,684	-6,045,584	38,157,100

Page II

Department of Defense FY 1989 R D T & E Program

Exhibit R-1

	Summary			Date: F	February 1988
				Thousands	of Dollars
	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989	AMENDED EV 1080
					£1 1303
Summary Recap of Budget Activities					-
Technology Base	3,236,795	3,293,709	3,643,323	-365,966	3,277,357
Advanced Technology Development	5,031,803	5,433,672	8,477,821	-1,970,528	6,507,293
Strategic Programs	7,703,300	7,390,674	9,222,921	-2,698,314	6,524,607
Tactical Programs	11,031,555	12,211,715	13,826,516	-733,857	13,092,659
Intelligence and Communications	4,702,339	4,882,161	4,841,956	-372,134	4,469,822
Defensewide Mission Support	4,235,515	4,051,195	4,190,147	95,215	4,285,362
Total Research, Development, Test & Evaluation	35,941,307	37,263,126	44,202,684	-6,045,584	38,157,100
Summary Recap of FYDP Programs					
Strategic Forces	1,147,222	831,973	813,283	-116,467	696,816
General Purpose Forces	2,192,007	1,762,879	1,724,294	287,573	2,011,867
Intelligence and Communications	6,361,788	6,244,624	5,744,597	460,298	6,204,895
Airlift/Sealift	97,017	26,922	128,397	-115,463	12,934
Guard and Reserve	37,318	59,965	83,367	64-	83,288
Research and Development (FYDP Program 6)	25,946,399	27,893,519	35,426,867	-6,828,123	28,598,744
Central Supply and Maintenance	150,662	177,235	278,231	-60,750	217,481
Training Medical and Other	4,424				
Support of Other Nations	4,320	3,591	3,648	530	4,178
Special Operations Forces	150	262,418		326,897	326,897
Total Research, Development, Test & Evaluation	35,941,307	37,263,126	44,202,684	-6,045,584	38,157,100

Page III

## Department of the Army FY 1989 R D T & E Program

Exhibit R-1

	Summary			Date: Fe	February 1988
				Thousands o	of Dollars
	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED FY 1989
Summary Recap of Research Categories					
Research Exploratory Development	219,459	168,936	197,642	-24,137	173,505
Advanced Development Engineering Development	1,162,567	1,094,338	1,434,264	-74,198	1,105,348
Management and Support	1,054,431	-0	2,013,716 1,191,779	-592,579 -86,912	1,421,137
Research and Development (FYDP Program 6) Operational Systems Development	4,055,642	3,978,472	5,490,059	-1,106,742	4,383,317
Total Research Development Test's Eval Army	4,699,035	4,670,659	5,972,845	-942,145	5,030,700
Summary Recap of Budget Activities				-	
Technology Base Advanced Technology Development	856,509	717,858	850,300	-98,335	751,965
Strategic Programs			87,233	-114,425	374,357 80,108
Intelligence and Communications Defensewide Mission Support	1,971,227 95,429 1,115,854	2,294,469 107,718 1.078.183	3,264,368 74,899	-611,253 -22,496	2,653,115 52,403
Total Research Development Test & Eval Army	669,		5,972,845	-942,145	5,030,700
Summary Recap of FYDP Programs					
Strategic Forces	962,661	198'98	57,051	-125	56,926
Intelligence and Communications	296,490	357,011	313,294	63,747	377,041
Research and Development (FYDP Program 6)	4,055,642	3,978,472	5,490,059	-1,106,742	4,383,317
Special Operations Forces	27,993 150	20,904 103,257	22,015	-2,163 132,636	19,852
Total Research Development Test & Eval Army	4,699,035	4,670,659	5,972,845	-942,145	5,030,700

Department of the Army FY 1989 R D T & E Program

Exhibit R-1

	i		į				Thousands of	Dollars
Line	Program e Element Number	Item Nomenclature	Act 	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED 6 FY 1989 C.
-	0601101A	In-House Laboratory Independent Research	-	16,675				5
7	0601102A	Defense Research Sciences	-	194,452	168,936	117,369	56,136	173.505 U
m	0601103A	University Research Sciences	-	8,332		80,273	-80,273	
4	0602105A	Materials Technology	-	17,244	11,589	13,141	-178	12,963 U
S	0602120A	Electronic Survivability and Fuzing Technology	7	38,487	43,163	42,157	-1,262	
9	0602122A	Survivability Enhancement	-					
7	0602211A	Aviation Technology	-					
∞	0602303A	Missile Technology	-	25,131	28,951	24,158	1,583	25.741 11
0	0602307A	Laser Weapons Technology		5,585	10,000	12,871	905*9-	n 998'9
07	0602601A	Combat Vehicle and Automotive Technology	-	24,970	22,610	21,908	382	22,293 U
11	0602618A	Ballistics Technology		48,253	22,775	34,909	-7,588	
12	0602622A	Chemical, Smoke and Equipment Defeating Technology	-	55,775	45,079	42,387	988-	41.501 11
13	0602623A	Joint Service Small Arms Program	-	10,751	12,857	15,553	-1,417	,
14	0602624A	Weapons and Munitions Technology		23,227	21,931	30,997	216	31,213 U
15	0602705A	Electronics and Electronic Devices	-	20,688	21,717	22,499	-738	
16	0602709A	Night Vision Technology	7	29,811	22,394	24,817	-1,992	
17	0602715A	Electronic Warfare Technology	-					
18	0602716A	Human Factors Engineering Technology	-	21,148	14,560	15,071	89-	15,003 U
19	0602720A	Environmental Quality Technology		11,118	9,915	9,581	-39	9,542 U

Page A-1-//.

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## Department of the Army FY 1989 R D T & E Program

Exhibit R-1

Date: Rebruary 1988	7
Appropriation: 2040 A Research Development Test & Eval Army	

					 		Thousands of Dollars	Dollars
Line No	Program e Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTHENT	S AMENDED 6 FY 1989 C
20	0602727A	Non-System Training Device Technology	-	3,666	4,011	3,429		3,429 U
21	0602770A	Military Disease Hazards Technology	<b>e</b> í	41,997	46,137	49,635	-1,353	46,282 U
75	0602782A	Command, Control, Communications Technology	-	32,090	9,764	29,578	-17,000	12,578 U
23	0602783A	Computer and Software Technology	-	8,471	8,221	6,461	<b>L-</b>	6,454 U
24	0602784A	Military Engineering Technology	٦.	43,478	36,905	49,552	-2,577	46,975 U
25	0602785A	Manpower/Personnel/Training Technology	-	15,300	15,476	17,981	-116	17,865 U
56	0602786A	Logistics Technology	,	35,533	34,513	45,182	-3,118	42,064 U
27	.0602787A	Medical Technology	-	68,711	54,701	63,310	-5,533	57,777 U
	Technology Base	gy Base		856,509	717,858	850,300		751,965
28	0603001A	Logistics Advanced Technology	7	14,582	10,000	19,343	-9,384	n 656'6
29	0603002A	Medical Advanced Technology	8	30,916	33,656	51,772	-17,276	34,496 U
30	0603003A	Aviation Advanced Technology	8	60,464	39,000	40,810	-5,500	35,310 U
31	0603004A	Weapons and Munitions Advanced Technology	7	24,397	24,914	41,562	-2,122	39,440 U
32	0603005A	Combat Vehicle and Automotive Advanced Technology	8	47,597	39,612	54,262	-8,011	46,251 U
33	0603006A	Command, Control, Communications Advanced	8	12,380	7,485	9,759	-2,034	7,725 U
34	0603007A	Human Factors/Personnel/Training Advanced	8	28,787	28,486	46,677	-16,133	30,544 U
35	0603008A	Electronic Warfare Advanced Technology	. 4					
36	0603102A	Materials and Structures Advanced Technology	8	15,641	8,185	9,206	-2,270	N 986'9
37	0603105A	Acquired Immune Deficiency Syndrome (AIDS) Research	8	18,551	11,500	12,000	-3,177	8,823 U
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Department of the Army FY 1989 R D T & E Program

Appropriation: 2040 A Research Development Test & Eval Army

Exhibit R-1

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Line	Program B Element					FY 88/69		
2	Number	Item Nomenclature	Act	FY 1987	FY 1988	PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED 6 FY 1989 C
38	0603255A	Operational Enhancements	8			14.228	-14 226	
39	0603270A	EW Technology	8	50.144	30.		077.41	
40	0603313A	Missile and Rocket Advanced Technology	N	33.879	18,000	636.36		
#	0603314A	Directed Energy	N			101707	9///2-	13,587
42	0603321A	Target Acquisition, Counter/Counter-	8			100130	74,600	7,787
43	0603324A	Countermeasures Army Development and Employment Agency	8	9,425	10,936	17.288	900	-
44	0603606A	Landmine Warfare and Barrier Advanced Technology		23,493	10.675	11.579	2006	7 4 6
45	0603607A	Joint Service Small Arms Program	~	6.552	8.820		000	0 6/0/6
9#	0603710A	Night Vision Advanced Technology	8	28.783	33 663	***************************************	•	9,564
47	0603733A	Environmental Quality Control Equipment	•			601/07	-2,500	23,669
4	44676030		•	0,000	3,050			
	45.000	HILLGEY ENGINEETING Advanced Technology	~	3,814	3,902	2,338		2,338 U
<b>4</b>	0603742A	Advanced Electronic Devices	8	4,491	6 , 089	7,924	-2,696	5.228 11
20	060375BA	Army Battlefield Technology Integration	8	11,227	9,100	9,601	•	
21	0603759A	Chemical Biological Defense and Smoke Advanced	~	3,015	3.564	3.450		
25	0603772A	Advanced Tactical Computer Science Technology	, <b>ભ</b>	1,064	6.112		6	
23	1140011A	Advanced Special Operations Research, Development and Acquisition	8	•	7,757		14,228	6,501 U
	Advanced	Technology Davelopment		432,797	353,969	488.782	-114 425	110 400
54	0102814A	Special Programs	м					1651415
22	0102821A	Classified Program	m					

Page A-3

Department of the Army FY 1989 R D T & E Program

Date: February 1988 Exhibit R-1

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App	Appropriations	2040 A Research Development Test & Eval Army					Date: Feb	February 1988
							Thousands of Dollars	Dollars
Line No	Program e Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	S AMENDED 6 FY 1989 C
99	0303152A	World-Wide Military Command and Control Systems, Information System	m	27,423				_
	Strategi	Strategic Programs		227,219	118,462	87,233	-7,125	80,108
57	0603220A	Advanced Rotocraft Technology Integration LHX	4	38,385				<b>5</b>
28	0603302A	Antitactical Missile System	•	28,994	22,076	85,853	-54,339	31,514 U
29	0603303A	Surface-to-Surface Missile Rocket System	4	40,136	24,000	37,071	-880	36,191 U
9	0603604A	Nuclear Munitions and Radiacs - Adv Dev	4	7,020	5,841			
19	0603612A	Advanced Anti-Tank Weapon System	4	52,455	33,566	117,446	-95,683	21,763 U
62	0603619A	Landmine Warfare and Barrier - Adv Dev	4	6,667	15,783	16,845	-4,349	12,496 U
63	0603627A	Smoke and Equipment Defeating Systems - Adv Dev	4	4,545	7,375	8,518	-3,519	4,999 U
64	0603639A	Aramament Enhancement Initiative	4					
9	0603642A	Evolutionary Surface-to-Air Missile - Adv Dev	4		•	3,061	<b>©</b>	. 3,053 U
99	0603645A	Armored Family of Vehicles - Advanced Development	4		1,000	44,970	-43,973	U 799
67	0603705A	Physical Security	₩.	462		2,907	-113	2,794 U
89	0603706A	Identification-Friend-or-Foe - Adv Dev	, •	18,802	10,000	14,940	-129	14,811 U
69	0603711A	Aircraft Survivability Equipment	4			12,548	-12,548	n
70	0603713A	Army Data Distribution System	•	39,343	28,000	25,500	-5,550	19,950 U
11	0603718A	Electronic Warfare Systems - Adv Dev	4			16,546	-16,546	n
72	0603725A	Remotely Piloted Vehicles and Drones - Adv Dev	4	9,596		865'9	865′9-	Þ
73	0603730A	Tactical Surveillance System - Adv Dev	4	8,591	34,166			

Page A-4

Date: February 1988

Exhibit R-1

Department of the Army FY 1989 R D T & E Program Appropriation: 2040 A Research Development Test & Eval Army

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17,440 U 164,212 U 3,923 U 87,120 U 14,962 U 12,283 U 4,349 U 12,901 U 1,422 U AMENDED FY 1989 3,430 960 Thousands of Dollars FY 1989 ADJUSTMENT -1,123 -2,249 <u></u>6 -11,557 -219 -13 -21,579 14,962 980′9-4 ES BUDGET FY 1989 PY 88/89 PRES BUDGET 4,553 862 3,932 4,362 28,997 166,461 21,579 1,426 87,339 12,288 18,987 5,735 FY 1988 27,100 3,864 3,355 4,337 157,000 11,959 1,000 80,000 3,039 14,399 1,195 15,325 16,999 FY 1987 3,329 4,512 7,700 4,237 23,905 1,562 5,291 17,058 83,902 11,555 19,748 22,368 5,438 9,823 Act Combat Service Support Computer System Evaluation 4 and Analysis Tactical Electronic Countermeasures Systems - Adv Tactical Electronic Surveillance System - Adv Dev Air Defense Command, Control and Intelligence Special Operations Forces Equipment - Adv Dev Tactical Electronic Support Measure Systems Logistics and Engineer Equipment - Adv Dev Night Vision Systems Advanced Development Medical Defense Against Chemical Warfare Light Armored Vehicle/Weasel Evaluation Airborne Adverse Weather Weapons System Forward Area Air Defense (FAAD) System Non-System Training Devices - Adv Dev Soldier Support and Survivability Weapons and Munitions - Adv Dev Chemical Systems - Adv Dev Item Nomenclature Follow-On LANCE - Adv Dev Classified Program (Adv) (C21) - Adv Dev Aviation - Adv Dev Program Line Element No Number 0603738A 0603747A 0603751A 0603740A 0603745A 0603754A 0603755A 0603757A 0603760A 0603766A 0603774A 0603775A 0603776A 0603777A 0603801A 0603802A 0603803A 0603804A 0603805A

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16

Page A-5

Department of the Army FY 1989 R D T & E Program

Exhibit R-1 Date: February 1988

Appropriation: 2040 A Research Development Test & Eval Army

			i				Thousands of Dollars	Dollars	
Line	Program le Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED 6	
93	0603806A	Chemical/Biological Defense Equipment - Adv Dev	4	7,886	10,508	5,513	1,847	7.360 11	
9	0603807A	Medical Systems - Adv Dev		26,541	21,863	24,379	-5,500	18,879 U	
95	0604202A	Aircraft Weapons	4	982	9,697	12,500	-8,039	4,461 U	
96	0604216A	Aircraft Propulsion System		100,921	100,000	65,938	-10,140	0 96',28	
97	0604223A	Light Armed Scout Helicopter	4		30,000	532,064	-407,377	124,687 U	
96	0604270A	EW Development	4	70,136	44,499				
66	0604306A	STINGER	₹.	6,409	7,747			Þ	
100	0604310A	Heliborne Missile - HELLFIRE	₹	1,966	2,463			ם	
101	0604313A	GRASS BLADE	4	2,886	4,953	14,615	-4,896	9,719 U	
102	0604321A	Joint Tactical Pusion Program	4	152,896	152,385			•	
103	0604324A	Army Tactical Missile System (Army TACMS)	₩	76,341	101,250	86,618	-2,181	84,437 U	
104	0604601A	Infantry Support Weapons	4	808					
105	0604603A	Nuclear Munitions and Radiac - Eng Dev	4	22,380	17,386			1	
901	0604604A	Medium Tactical Vehicles	4		906'6	23,555	1,392	24.947 U	
107	0604609A	Smoke and Equipment Defeating Systems - Eng Dev	4	6,437	9,978	13,229	-4,850		
108	0604611A	Advanced Anti-Tank Weapon System - Eng Dev	4			114,239	-3,730	110,509 U	
109	0604622A	Family of Heavy Tactical Vehicles	4		4,953		28,825		
110	0604630A	MIAl Development Program	4	3,618					
111	0604702A	Joint Tactical Information Distribution System	4		4,267			· =	

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Department of the Army FY 1989 R D T & E Program

Date: February 1988

Exhibit R-1

Appropriation: 2040 A Research Development Test & Eval Army

AMENDED e FY 1989 c 25,812 U 16,588 U 2,418 U 19,790 U 3,755 U 6,872 U = 1,611 U 98,291 U 9,374 U 483 U 6,258 U Thousands of Dollars FY 1989 ADJUSTMENT -7,369 -6,042 -18,283 -826 -17 7 -29,600 -1,139 7 -68,963 -5,077 -11,138 -5,034 -2,271 FY 88/89 PRES BUDGET FY 1989 22,630 18,283 3,244 6,889 1,615 33,181 4,894 29,600 24,867 484 11,138 167,254 8,529 14,408 FY 1988 1,915 24,745 5,396 1,417 90,262 16,841 15,128 2,974 592 7,759 6,923 7,633 18,666 410 6,021 2,988 35,286 7,886 FY 1987 4,170 1,126 3,723 65,151 13,514 9,094 37,547 10,407 15,727 Act Tactical Electronic Surveillance System - Eng Dev Air Defense Command, Control and Intelligence -Medical Chemical Defense Life Support Material Tactical Electronic Countermeasures - Eng Dev Education and Training Systems Development Combat Feeding, Clothing, and Equipment Identification-Friend-or-Foe - Eng Dev Tactical Surveillance System - Eng Dev Non-System Training Devices - Eng Dev Meteorological Equipment and Systems Automatic Test Equipment Development Remotely Piloted Vehicles - Eng Dev Unmanned Aerial Vehicles - Eng Dev Aircraft Survivability Equipment Night Vision Systems - Eng Dev Item Nomenclature Special Purpose Detectors Classified Program (Eng) Physical Security Project Sierra Eng Dev 0604709A Line Element No Number 0604710A 0604711A 0604713A 0604715A 0604718A 0604722A 0604723A 0604726A 0604730A 0604736A 0604737A 0604740A 0604741A 0604746A 0604750A 0604754A 0604757A 0604766A 112 117, 113 114 115 116 118 123 119 120 122 124 121 125 126 127 128 129 130

UNCLASSIFIED

Exhibit R-1

Department of the Army FY 1989 R D T & E Program

Date: February 1988 Appropriation: 2040 A Research Development Test & Eval Army

	S 0 8	.82 U	. 84 u	129 U	95 U	37,649 U	13,577 U	ם נו	13,262 U	25 U	39 U	5,967 <sup>.</sup> U	17 U	37 U	61 U	72 U	14 U	0 OS	33 U	Þ
f Dollars	AMENDED FY 1989	19,182	17,784	11,029	132,595 U	37,6	13,5	10,311	13,2	13,825	14,839	5,9	17,717 U	82,837	8,661	11,972	19,944	135,460	4,833	
Thousands of Dollars	FY 1989 ADJUSTHENT	3,752	-44	-2,060	-1,324	8,279	-4,573	-45	-6,943	-4,173	-130	564	-8,036	1,667	-10,172	-32	-4,569	130,628	-12	-29,829
	FY 88/89 PRES BUDGET FY 1989	15,430	17,828	13,089	133,919	29,370	18,150	10,356	20,205	17,998	14,969	6,531	25,753	81,170	18,833	12,004	24,513	4,832	4,845	29,829
	FY 1988	18,224	14,860	6,903	110,855	14,191	11,886	13,858	22,905	13,327	14,703	6,403	14,797	122,746	4,000	13,971	29,988	55,000	26,327	
	FY 1987	26,546	13,864	9,440	102,493	٠	17,222	18,926	38,312	11,524	19,679	5,953	10,301	78,720		12,576	37,642		39,683	41,860
i	Act		_																	
	~ '	•	•	4	4	4	4	<b>4</b>	•	•	•	*	4	•	4	•		4	4	4
	Item Nomenclature	A Joint Surveillance/Target Attack Radar System	\ Joint Interoperability of Tactical Command & Control Systems (JINTACCS)	Ž	Weapons and Munitions - Eng Dev		Logistics and Engineer Equipment - Eng Dev							Combat Vehicle Improvement Programs		Maneuver Control System	155mm Self-Propelled Howitzer Improvements 4	Aircraft Modifications/Product Improvement Programs	Weapons and Munitions Equipment Upgrade Program 4	Special Operations Forces Equipment
			0604779A	Ž	0604802A	0604803A	0604804A Logistics and Engineer Equipment - Eng	0604805A Command, Control, Communications Systems -	0604806A Chemical/Biological Defense Equipment -	0604807A									Weapons and Munitions Equipment Upgrade	0203751A Special Operations Forces Equipment 4

UNCLASSIFIED

Department of the Army FY 1989 R D T & E Program

Exhibit R-1 Date: February 1988

Appropriation: 2040 A Research Development Test & Eval Army

			i				Thousands of Dollars	f Dollars
Line No	Program le Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	S AMENDED e FY 1989 C
150	0203752A	Aircraft Engine Component Improvement Program	•	2,531	6,144	7.744	4,170	11,914 U
151	0203801A	Missile/Air Defense Product Improvement Program	4	41,385	31,040	64,359	-25,350	n 600'6E
152	0203802A	Other Missile Product Improvement Programs	4	14,022	40,000	25,454	5,349	30,803 U
153	0208010A	Joint Tactical Communications Program (TRI-TAC)	4	17,770	12,998	13,958	-67	
154	0303145A	RUCOM C3 Systems	4	1,038	1,289	989	-2	
155	1110011A	Force Enhancements-Active	4	150	95,500		118,408	118,408 U
	Tactical	Tactical Programs		1,971,227	2,294,469	3,264,368		2.653.115
156	0604201A	Aircraft Avionics	w	168		•		
157	0604716A	Mapping and Geodesy – Eng Dev	ĸ	264	6,459	6,488		6.488 11
158	0604778A	NAVSTAR Global Positioning System (User Equipment)	ĸ	4,494	9,995	8,803		
159	0301307A	Foreign Science and Technology Center	ĸ					
160	0301318A	HUMINT (Controlled)	ĸ					
191	0301327A	Technical Reconnaissance and Surveillance	S					
162	0301334A	Other Commands GDIP Activities	ហ					
163	0301359A	Special Army Program	ĸ					
164	0303126A	Long-Haul Communications (DCS)	ហ	2,116	s			
165	0303142A	SATCOM Ground Environment	ĸ	71,418	74,966	46,694	-19.996	0 11 804.30
, 166	0303401A	Communications Security (COMSEC)	ĸ	6,001	5,217	5,126		
	Intellige	Intelligence and Communications		95,429	107,718	74,899	-22,496	52,403

Page A-9

Department of the Army FY 1989 R D T & E Program

Exhibit R-1

Appropriation: 2040 A Research Development Test & Eval Army

ā i	propriation	Appropriation: 2040 A Research Development Test & Eval Army	 				Date: Feb	February 1988
	1		ļ				Thousands of	Dollars
Line						FY 88/89		9
Š	Number	Item Nomenclature	Act	FY 1987	FY 1988	PRES BUDGET FY 1989	FY 1989 Adjustment	AMENDED 6 FY 1989 c
167	0603790A	NATO Research and Development	v	39.383				
.168	0605301A	Kwajalein Missile Range	v	181.081	000			Þ
169	0605502A	Small Business Innovative Research	· •	37.462	67/1061	184,957	-20,102	164,855 U
170	0605601A	Army Test Ranges and Facilities	· •	238,620	191.103	200	01	
171	0605602A	Army Technical Test Instrumentation and Targets	9	19,562	62,500	79.182	10,710	
172	0605603A	Army User Test Instrumentation and Threat	9	40,625	59,186	73,188	-19,072	00,110 U
173	·0605702A	Meteorological Support to RDTSE Activities	9	16,680	19,195	20,155	-1,267	1 999 0
174		Materiel Systems Analysis	vo	21,994	22,264	26,413	-2,630	23, 783 11
175		Exploitation of Foreign Items	9	3,800	4,390	4,362	. 2-	
176		Support of Operational Testing	v	44,175	49,796	61,484	-10,135	51,349 II
177	0605801A	Programwide Activities	9	74,091	82,349	87,835	-4,680	83,155 U
178	0605802A	International Cooperative Research and Development	9	932	1,093	1,136		
179	0605803A	Technical Information Activities	9	5,213	5,500	6,403	009-	
180	0605805A	Munitions Standardization, Effectiveness and Safety	9	10,593	14,331	16,185	-3,204	
181	0605810A	RDIFE Support for Nondevelopmental Items	9	7,984	17,842	8,283	•	
182	0605872A	Productivity Investments	9	24,069	35,000	31,576	18.371	
183	0605894A	Real Property Maintenance - RDTsE	9	157,812	155,000	171,106	-9.132	
184	0605896A	Base Operations - RDTGE	9	181,679	177,500	189,524	-5.816	
185	0605898A	Management Headquarters (Research and Development)	9	12,106	9,501	13,727	-111	

UNCLASSIFIED

Department of the Army FY 1989 R D T & E Program

Exhibit R-1

Date: February 1988 Appropriation: 2040 A Research Development Test & Eval Army

			j			Thousands of Dollars	Thousands of Dollars	Dollars
Line	Program e Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTHENT	S AMENDED 6 FY 1989 C
186	186 0708011A	Industrial Preparedness	9	27,993	20,904	22,015	-2,163	19,852 U
	Defensev	Defensewide Mission Support		1,115,854	1,078,183	1,207,263	-88,511	1,118,752
Total		Research Development Test & Eval Army		4,699,035	4,670,659	5,972,845	-942,145	5,030,700

Page A-11

## Department of the Navy FY 1989 R D T & E Program

Summary

Date: February 1988

Exhibit R-1

				Thousands of	f Dollars
	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED FY 1989
Summary Recap of Research Categories					
Research Exploratory Develonment	353,140	342,016	417,277	-60,525	356,752
Advanced Development	1,872,666	407,951	477,149	-1 279 777	415,887
Engineering Development Management and Support	4,594,985	4,360,394	3,920,101	653,261	4,573,362
Research and Development (FYDP Program 6) Operational Systems Development	7,841,585	8,356,261	8,755,972	189,654	7,856,318
Total Research Development Test & Eval Navy	9,292,433	9,512,917	10,044,819	71,035	1,359,882
Summary Recap of Budget Activities					
Technology Base Advanced Technology Development	785,121	749,967	894,426	-121,787	772,639
Strategic Programs	1,813,145	1,252,122	894,391	-93,721 -113,380	204,024 781.011
Intelligence and Communications Defensewide Mission Support	5,173,554 625,769 750,895	5,663,053 913,856 700,563	6,207,442	-215,002 -225,526	5,992,440
Total Research Development Test & Eval Navy	9,292,433	9,512,917	10,044,819	-828,619	9,216,200
Summary Recap of FYDP Programs					
Strategic Forces General Purpose Forces	210,266	180,711	210,736	-39,670	171,066
inceiligence and Communications Research and Development (FYDP Program 6) Central Supply and Maintenance	499,879 7,841,585 37,961	520,894 8,356,261	532,216 8,755,972	74,274	515,413 606,490 7,856,318
<b>7</b>	: !	19,334	•	-2,470 19,731	43,482
Total Research Development Test & Eval Navy	9,292,433	9,512,917	10,044,819	-828,619	9,216,200

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## Department of the Navy FY 1989 R D T & E Program

Exhibit R-1

Appropriation: 1319 N Research Development Test & Eval Navy

							Date: Fe	Date: February 1988
			İ				Thousands o	of Dollars
Line	Program le Element	Item Nomenclature	Act	FY 1987	PY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTHENT	AMENDED 6
-	0601103N	University Research Initiatives	-	1 00				
8	0601152N	In-House Independent Laborators Bosses	۱ ,			54,603	-24,603	Ð
•			-	23,320	22,627	23,763		23,763 U
•			<b>ન</b> .	319,230	319,389	368,911	-35,922	332,989 U
4	0602111N	Anti-Air Warfare/Anti-Surface Warfare Technology	1	64,662	54,273	69,100	-13,701	55,399 U
<b>S</b>	0602113N	Electronic Warfare Technology	7	14,724		15,098	-15,098	
9	0602121N	Surface Ship Technology	1	12,349	12,953	13,976	-69 <del>-</del>	13,284 11
7	0602122N	Aircraft Technology	_	19,729	20,700	19,558	2.910	0 107/CC
₩	0602131М	Marine Corps Landing Force Technology	-	14,843	15,915	16,283	090.1-	15, 223 II
6	0602232N	Command, Control, and Communications Technology	-	18,536	16,000	21.734	-7.784	1 0 0 0 0 0
10	0602233N	Mission Support Technology	7	33,745	28,000	30,595	15.40	20,056 ::
11	0602234N	Systems Support Technology	1	60,256	26,000	71.325	יין רו מיינים רו	0 000167
12	0602314N	ASW Technology	-	85,219	92,569	94.276	13,031	3/4/4 U
13	0602315N	Mine and Special Warfare Technology	1	13,887	14,909	15,381		0 75,041 0
14	0602323N	Submarine Technology	7	12,201	14,123	15.477	630-	0 186,C1
15	0602324N	Nuclear Propulsion	-	41,582	41.392	50.372	506	0 \$10'\$1
16	0602435N	Ocean and Atmospheric Support Technology	-	26,124	25.727	36,005	6	44,423 U
11	0602936N	Independent Exploratory Development	· H	14,124	15,390	066/07	#ZT-	26,871 U
						6/6/07	-1,175	15,804 U
	Technology Base	gy Base		785,121	749,967	894,426	-121,787	772,639
18	0603202N	Avionics	7	3,344	3,675	3,708	-3,708	n

UNCLASSIFIED

Page N-1 -CL

## Department of the Navy FY 1989 R D T & E Program

Appropriation: 1319 N Research Development Test & Eval Navy

Exhibit R-1

Date: February 1988

			1				Thousands of	of Dollars
Line	Program e Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989	AMENDED 6
			!	:		1		
13	0603210N	Aircraft Propulsion	7	3,786	5,760	7,283	-125	7,158 U
20	0603217N	Advanced Aircraft Subsystems	7	5,324	11,555	21,709	-7,200	14.509 U
21	0603268N	Naval Airship	, <b>(</b> 1	6,743	24,467	62,376	-62,376	D
22	0603270N	EW Technology	7		11,563		12,197	12,197 U
23	0603303N	Electromagnetic Radiation Source Elimination Technology	~	7,252	5,585	12,884	-6,832	6,052 U
24	0603508N	Ship Propulsion System	8	16,520	8,829	24,525	-9,683	14,842 U
25	0603573N	Electric Drive	8	9,168	14,171	14,264	-223	14,041 U
56	0603701N	Human Factors Engineering	8	2,425	2,533	4,912	-2,458	2,454 U
27	0603706N	Medical Development	7	11,167	19,127	18,743	-135	18,608 U
28	0603707N	Manpower and Personnel Systems	8	2,855	3,038	5,518	-1,542	3,976 U
29	0603712N	Generic Logistics ReD Technology Demonstrations	8	17,120	26,815	24,169	-4,304	19,865 U
30	0603720N	Education and Training .	7	4,759	5,065	8,722	-2,569	6,153 U
31	0603732M	Marine Corps Advanced Manpower/Training Systems	8	2,306	1,861	5,149	-43	5,106 U
32	0603733N	Simulation and Training Devices	8	8,325	8,276	9,532	-3,081	6,451 U
33	N667E090	Navy Logistic Productivity	7		196	1,476	-12	1,464 U
34	0603743N	ARIADNE	8	4,836	10,826	11,844	-303	11.541 U
35	0603747N	Advanced Anti-Submarine Warfare Technology		23,657	22,273	2,458	-21	2.437 U
36	0603792N	Advanced Technology Transition	7	14,362	46,976	58,473	-1,303	57,170 U
	Advanced	Advanced Technology Development		143,949	233,356	. 297,745	-93,721	204,024

UNCLASSIFIED

Date: February 1988

Exhibit R-1

Department of the Navy FY 1989 R D T & E Program

Appropriation: 1319 N Research Development Test & Eval Navy

	1		!				Thousands of	of Dollars
Line	Program ne Element o Number	Item Nomenclature	Act	FY 1987	FY 1988	PY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	S AMENDED 6 FY 1989 C
37	NITEE090 /	ASW Technology for Strategic Defense	m			67.400		
38	3 0603451N	Tactical Space Operations	ო	12,068	1.992	. A.	100	
39	0603588N	SSBN Survivability.	m	927	- 006° y	13 636	177	
40	0603735N	WWMCCS Architecture Support	m			4.915	\$6T'\$-	9,732 U
4	. 0604363N	TRIDENT II	m	1,573,323	1,050,463	581.740	14 - 8-	D # /8 /#
42	0605856N	Strategic Technical Support	m	2,334	3,431	3,508	-268	3.240 11
43	0101221N	Fleet Ballistic Missile System	M	18,392	27,898	54,470	-15,737	
44	0101224N	SSBN Security Technology Program	m	52,239	38,833	42,476	-574	41.902 11
45	0101228N	Trident	m	33,685	30,921	43,938	-10,455	
46	0101401N	Extremely Low Prequency (ELF) Communications	m	14,967	3,221	3,342	-28	
47	0101402N	Navy Strategic Communications	m	89,788	79,160	62,799	-12,861	
48	0102427N	Naval Space Surveillance	m	1,195	678	711		0 2007
49	0303131N	Minimum Essential Emergency Communications Network (MEECN)	æ	1,637	1,026	1,054	-10	1,044 U
. 20	0303152N	World-Wide Military Command and Control Systems, Information System	m	12,590	7,599	5,253	-625	4,628 U
	Strategi	Strategic Programs		1,813,145	1,252,122	894,391	-113.380	110 101
21	N601E090	Integrated Aircraft Avionics	4	19,845	8,807	2,093	-26	2-067 H
52	0603206N	Electronic Warfare Advanced Development	4	19,337		46,821	-46.821	
23	0603207N	Air/Ocean Tactical Applications	4	6,473	11,254	15,909	-8-134	, 377, 7
24	0603208N	T-45 Training System	4	134,163	94,579	87,822		

UNCLASSIFIED

## Department of the Navy FY 1989 R D T & E Program

Exhibit R-1

Date: February 1988 Appropriation: 1319 N Research Development Test & Eval Navy

			į				Thousands of Dollars	Dollars
Line	Program 16 Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED 6 FY 1989 C
S	55 0603216N	Aviation Life Support Systems (Adv)	•	3,623	3,545	8,683	-350	B. 333 II
99	0603220N	Advanced Multimission Sensor System	4			2,856	-2.856	
57	0603222N	Skipper Enhancements	4		9,004		1,190	n 061,1
58	0603228N	CV ASW Module	4	3,059		5,175	-4,211	U 496
29	0603254N	Air ASW	4	5,308	8,167	9,717	-757	n 096'8
9	0603256N	V-22A	4			17,909	-17,909	, a
61	0603257N	A-6 Upgrades	4	161,015	215,023	78,097	-78,097	) b
62	0603260N	Airborne Mine Countermeasurers	₩	10,680	8,783	12,322	-174	12,148 U
63	0603261N	Tactical Airborne Reconnaissance	4	22,094	8,387	8,631	-353	8.278 U
64	0603262N	Aircraft Survivability and Vulnerability	4	13,208	9,641	18,569	096,9-	11,619 U
9	0603306N	Advanced A/L Air-to-Surface Missile System	4	29,648	31,888	26,724	-4.143	22.581 11
99	0603318N	Advanced Surface-to-Air Missile	4	33,745	63,612	102,183	-1,469	100,714 1
67	N618E090	NATO AAW Systems	4		5,872	8,216	-148	8,068
89	0603320N	Low Cost Anti-Radiation Seeker	4	37,946	14,057	16,870	-8,109	8,761 U
69	0603321N	Advanced Air-to-Air Missile (AAAM)	4		16,637	87,592	-57,218	30,374 U
70	0603382N	Battle Group AAW Coordination	4	6,663	7,829	11,665	-3,073	8,592 U
17	0603502N	Surface Mine Countermeasures	❖	17,591	15,012	11,876	-189	11,687 U
72	0603504N	Advanced Submarine ASW Development	4	8,560	8,121	14,775	-2,385	12,390 U
73	0603506N	Surface Ship Torpedo Defense	4	16,768	24,198	36,518	-1,307	35,211 U

UNCLASSIFIED

Department of the Navy FY 1989 R D T & E Program

Exhibit R-1 Date: February 1988

Appropriation: 1319 N Research Development Test & Eval Navy

							Thousands of Dollars	Dollars
Line No	Program To Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED e FY 1989 C
74	N603E090	Shipboard Information Transfer System	4			4,017	-4.017	=
75	0603512N	Catapults	•		4,894	11,809	-3.812	7,007
9/	0603513N	Shipboard System Component Development	4	10,342	12,593	16,802	-5.881	10.427
7.7	0603514N	Ship Combat Survivability	4	25,253	26,191	36,298	766.7-	28.301 11
78	0603522N	Submarine Arctic Warfare Support Equipment Program	4	2,512	1,965	3,474	-101	
79	0603525N	PILOT PISH	4	71,841	74,459	59,851		59,851 II
90	0603527N	RETRACT LARCH	4					
81	0603528N	Non-Acoustic Anti-Submarine Warfare (ASW)	₩	19,979	9,805	20,818	-5,104	15.714 11
85	0603529N	Advanced ASW Target	<b>~</b>	11,763	9,590	11,529	-280	11.249 11
83	N9ESE090	RETRACT JUNIPER	4	23,523	24,672	38,322	- 600	37.722 11
84	0603542N	Radiological Control	4	1,243	2,863	3,341	-102	
82	0603550N	LINK DOGWOOD	4	2,000				
98	0603553N	Surface ASW	4	19,068	46,240	31,100	41.650.	20,250 #
87	0603560N	Submarine Hull Array Development (Adv)	4	10,953	•			
88	0603562N	Submarine Tactical Warfare Systems	4	5,597	5,872	9.410	-3.175	966
88	0603564N	Ship Development		11,076	3,915	11,266	-380	
90	0603565N	Surface Ship Navigation System	4	350		•		
91	0603569N	Attack Submarine Development	₹		123,211	24,028	-10,388	13.640 11
92	0603570N	Advanced Nuclear Reactor Components and Systems Development	₹	93,175	089'08	87,617	-2,617	85,000 U

UNCLASSIFIED

Department of the Navy FY 1989 R D T & E Program

Exhibit R-1

App	Appropriation: 1319	1319 N Research Development Test & Eval Navy				ı	Date: Feb	Date: February 1988
							Thousands of Dollars	Dollars
Line No	Program B Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 Adjustment	AMENDED e FY 1989 C
93	0603571N	Physical Security	4	4,123	6,513	6,479	-134	6,345 U
94	0603576N	CHALK EAGLE	•	75,628	89,451	99,631		U 169,69
95	0603577N	Shipboard Laser Weapon	4			2,874	-2,874	
96	0603578N	A4W/AlG Nuclear Propulsion Plant	₩	3,308				<b>5</b>
97	0603582N	Combat System Integration	*	13,942	961'6	10,467	-147	10,320 U
86	N165E090	Joint Advanced Systems	*	128,499	224,550	236,620		236,620 U
66	N109E090	Mine Development	4	886'9	23,486	29,523	-8,491	21,032 U
100	0603602N	CHALK PINE	4					,
101	N609E090	Conventional Munitions	Ŧ	27,147	20,462	36,902	-15,285	21,617 U
102	0603610N	Advanced Warhead Development	4			7,686	-7,686	D
103	М1196090	Marine Corps Assault Vehicles	-	14,214	11,945	13,497	-166	13,331 U
104	0603634N	Tactical Nuclear Development	4	6,631	2,058	19,375	-8,970	10,405 U
105	0603635M	Marine Corps Ground Combat/Support System	•	16,866	1,601	9,410	-2,752	0,658 U
706	0603654N	Joint Service Explosive Ordnance Development	4	13,843	11,307	12,412	-579	11,833 U
101	0603702N	Ocean Engineering Systems Development	4	1,374	1,471	1,901	-49	1,852 U
108	0603704N	ASW Oceanography	4	10,419	8,588	10,120	-848	9,272 U
109	0603708N	ASW Signal Processing	4	15,952	18,001	13,851	-315	13,536 U
110	N602E090	Advanced Marine Biological System	4	5,145	5,491	6,286	-467	5,819 U
111	0603711N	Fleet Tactical Development and Evaluation Program	4	4,289	4,697	6,127	-51	U 970,8

## Department of the Navy FY 1989 R D T & B Program

Exhibit R-1 Date: February 1988

Appropriation: 1319 N Research Development Test & Eval Navy

			1				Thousands of Dollars	Dollars
Line	Program ie Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED e FY 1989 C
112	0603713N	Ocean Engineering Technology Developments	4	12,634	13,135	16,108	-1,952	14,156 U
113	0603717N	Command and Control Systems	4	31,601			27,504	
114	N611E090	Container Off-Loading and Transfer System (COTS)	4	2,783	1,495			
115	0603722N	Naval Special Warfare	4	19,498		20,706	-20,706	• <b>•</b>
116	0603724N	Navy Energy Program	4	15,953	7,556	8,839	-266	8,573 U
117	·0603725N	Pacilities Improvement	4	8,152	9,744	4,185	-148	4.037 U
118	0603726N	Merchant Ship Naval Augmentation Program	•			3,530	-3,530	Đ
119	0603729M	Marine Corps Combat Services Support	4	15,402	9,640	24,418	-8,932	15,486 U
120	0603734N	CHALK CORAL	4	10,681	4,546	4,524		4,524 U
121	0603737N	LINK HAZEL	4	17,043	4,000	6,800		n 008'9
122	0603740N	LINK LAUREL	4	40,122	53,843	59,672		59,672 U
123	0603741N	Satellite Laser Communications	4	17,470			5,269	5.269 11
124	0603744N	LINK SPRUCE	4	67,743	281,855	311,707	-311,707	
125	0603746N	RETRACT MAPLE	₹	48,465	72,028	50,897	30.800	11 693 18
126	0603748N	LINK PLUMERIA	4		7,000	11,529	002/00	11,000 11
127	0603750N	CHALK WEED	4		1,324	10.014	006	0 670'11
128	0603751N	RETRACT ELM	4		39,041	41.039		1, 020 1
129	0603752N	CHALK POINSETTIA	4					D 650.11
130	NE 9 LE 090	Warfare Systems Architecture and Engineering	4	5,829			11,225	11,225 U

Page N-7

Department of the Navy FY 1989 R D T & E Program

Exhibit R-1

Appropriation: 1319 N Research Development Test & Eval Navy

							Date: Fek	Date: February 1988
	•		1				Thousands of	of Dollars
Line	Program e Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	S AMENDED e FY 1989 C
131	0603764N	LINK BVERGREEN	4					
132	0603784N	Fixed Distributed System	•	27,250	64,588	112,039	-7.149	104.890.11
133	0603785N	Anti-Submarine Warfare Environmental Acoustic Support	4	10,178	16,143	13,920	-195	13,725 U
134	0603787N	Special Processes	4	41,485	40,423	38,173		38,173 U
135		Standard Avionics Development	4	9,944	7,230	17,445	-5,323	12,122 U
136	0604211N	IFF System Development	4	20,820	20,033	33,866	-8,632	25,234 U
137	0604212N	LAMPS	<b>~</b>	18,587	18,359	6,171	-115	n 950'9
138	0604213N	Helicopter Development		8,900	13,080	12,595	-594	12,001 U
139	0604214N	AV-8B Aircraft (Engineering)	4	41,812	36,655	11,404	27,752	39,156 U
140	0604215N	Support Equipment	4	26,135	60,600	64,307	4,672	n 66,89
141	0604217N	S-3 Weapon System Improvement	•	13,747	٠			
142	0604219N	Airborne ASW Developments	4	1,228				· =
143	0604221N	P-3 Modernization Program	4	53,082	97,788	152,145	52,675	204.820.11
144	0604224N	Airborne Electronic Warfare - Eng	. ♥	31,713		37,384	-37,384	
145	0604226N	Airborne Self-Protective Jammer	4	9,692		6,324	-6,324	-
146	0604229N	Carrier Inner Zone ASW Helicopter	*	6,175				
147	0604233N	Advanced Tactical Aircraft (ATA)	4					
148	0604252N	Aircraft Propulsion	4	27,500		1,999	-1,999	
149	0604255N	Blectronic Warfare Simulator Development	4	38,215	33,846	43,401	-4,650	38.751 11
								0 10100

Date: February 1988 Exhibit R-1

Department of the Navy FY 1989 R D T & E Program

Appropriation: 1319 N Research Development Test & Eval Navy

			ł				Thousands of Dollars	Dollars
Line No	Program e Element Number	Item Nomenclature	Act	FY 1987	PY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED 6 FY 1989 C
150	0604260N	C/MH-53E	. 🕶	3,627	9,593	9,228	-277	11 150.8
151	0604261N	Acoustic Search Sensors	•	27,214	39,037	55,385	-12.229	
152	0604262N	V-22A	•	421,421	465,662	306,677		306.677
153	0604264N	Aviation Life Support Systems (Eng)	4	20,712	19,340	18,905	-1,743	17.162 11
154	0604268N	Aircraft Engine Component Improvement Program	4	36,153	35,086	37,267	-1,164	
155	0604270N	EW Development	4		182,887		189,814	189,814 U
156	0604301N	MK 92 Fire Control System Upgrade	4	3,705	3,441	2,974	-28	2,946 U
157	0604303N	AEGIS Area Air Defense	4	3,278	7,226	9,267	-113	9,154 U
158	0604307N	AEGIS Combat System Engineering	4	113,206	104,150	46,162	13,304	59.466 11
159	0604308N	LINK ASH	~	8,582				
091	0604309N	SEA LANCE	4	105,565	105,038	113,518	-63.518	D 000 US
161	0604314N	Advanced Medium Range Air-to-Air Missile	4	4,892	24,467	13,960	-360	13.600 !!
162	0604353N	Vertical Launching System	4	12,639		•		
163	0604354N	Air-to-Air Hissile Systems Engineering	4	23,326	19,573	23,954	-2.648	0) 306 11
164	0604355N	Vertical Launch ASROC	4	39,232	40,397	5,670	24,617	30.287 11
165	0604358N	Close-In Weapon System (PHALANX)	4	6,282	5,055	11,416	060,9-	5.326 !!
166	0604361N	NATO SEA SPARROW	4	1,829	2,936	6,020	05-	5.970 11
167	0604366N	Standard Missile Improvements	4	43,566	29,359	45,007	7,052	52.059 U
168	0604367N	ТОМАНАЙК	₹.	60,540	45,000	46,699	-1,149	45,550 U

Page N-9

## Department of the Navy FY 1989 R D T & E Program

Appropriation: 1319 N Research Development Test & Eval Navy

Exhibit R-1

Date: February 1988

							Thousands of Dollars	Dollars
Line	Program e Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTHENT	S AMENDED 6 FY 1989 C
169	0604369N	5"Rolling Air Frame Hissile	4	. 22,789	12,622	10,047	-1,444	9,603 U
170	0604370N	SSN-688 Class Vertical Launch System	4	15,404	17,886	14,388	-230	14,158 U
171	0604372N	New Threat Upgrade	· •	39,668	19,573	13,196	-220	12,976 U
172	0604502N	Submarine Communications	4	3,610	3,276	4,476	-336	4,140 U
173	0604503N	Submarine Sonar Development	4	48,702	33,564	37,084	-1,051	36,033 U
174	0604504N	Air Control	4	10,272	13,702	19,663	-1,635	18,028 U
175	0604506N	Chemical Warfare Countermeasures	4	4,920	8,414	8,702	-2,194	n 805.9
176	0604507N	Navy Standard Signal Processors	4	95,809	64,753	29,367	-350	29,017 U
111	0604508N	Radar Surveillance Equipment	•	7,293	6,851	10,702	-4,578	6,124 U
178	0604511N	Intelligence Systems	4		976	21,916	-21,916	<b>&gt;</b>
179	0604515N	Submarine Support Equipment Program	4	17,302	14,680	15,728	-272	15,456 U
180	0604516N	Ship Survivability	4	6,423	7,607	6,445	-365	, n 080'9
181	0604518N	Combat Information Center Conversion	4	30,709	6,987	30,822	-11,213	19,609 U
182	0604524N	Submarine Combat System	4	288,768	317,849	392,584	-10,050	382,534 U
183	0604561N	SSN-21 Developments	4	240,523	210,000	195,080		
184	0604562N	Submarine Tactical Warfare System	4	40,501	42,013	45,165	-1,248	43,917 U
185	0604563N	Physical Security (Engineering)	4	6,338	10,818	12,486	-400	12,086 U
186	0604567N	Ship Subsystem Development/Land Based Test Site	4	75,219	48,888	74,089	-15,422	U 799,88
187	0604573N	Shipboard Electronic Warfare Improvements	4	49,077		48,529	-48,529	

UNCLASSIFIED

## Department of the Navy FY 1969 R D T & E Program

Appropriation: 1319 N Research Development Test & Eval Navy

Exhibit R-1

Appı	Appropriations	1319 N Research Development Test & Eval Navy					Date: February	ruary 1988
							Thousands of	Dollars
Line No	Program B Element Number	Item Nomenclature	Act 	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	S AMENDED 6 FY 1989 C
188	0604574N	Standard Embedded Computer Resources	4	18,757	19,635	35,412	-22,219	13,193 U
189	0604575N	AN/SQS-53C		23,927	11,114	8,418	-5,450	2,968 U
190	0604578N	Link Birch	4	5,810	3,000	1,922		1,922 U
191	0604601N	Mine Development	4	10,270	10,232	10,937	-548	10,389 U
192	0604602N	Naval Gunnery Improvements	4	9,208	9,970	14,016	-6,147	7,869 U
193	0604603N	Unguided Conventional Air-Launched Weapons	4	1,445	1,690	6,367	-4,348	2,019 U
194	0604604N	Chemical Warfare Weapons	4	3,670				5
195	0604608N	Surface Electro-Optic System	•	15,241	15,244	5,860	98	5,774 U
196	0604609N	Bomb Fuze Improvement	4	6,083	8,380	4,844	-3,254	1,590 U
197	0604610N	MK 50 Torpedo	4	172,994	140,600	12,622	122,063	134,685 U
198	0604654N	Joint Service Explosive Ordnance Development	4	5,081	5,316	5,379	-45	5,334 U
199	0604656M	Marine Corps Assault Vehicles			20,555	15,267	4,758	20,025 U
200	0604657M	Marine Corps Ground Combat/Supporting Arms Systems	4	2,924		4,939	-4,939	Þ
201	0604675N	MK 48 ADCAP (Engineering)	4	55,656	21,700	30,300	-2,618	27,682 U
202	0604704N	Anti-Submarine Warfare Oceanographic Equipment	₹	1,127	1,122	1,245	-10	1,235 U
203	0604705N	CHALK BANYAN	₩	13,000	13,000	7,861	-7,861	· <b>b</b>
204	0604707N	Theatre Mission Planning Center	4	19,685	28,235	16,778	617	17,395 U
205	0604708N	Initial Trainer Acquisition	<b>~</b>	62,311		70,507	-13,758	56,749 U
206	0604710N	Navy Energy Program	•	8,052	4,305	4,929	-168	4,761 U

UNCLASSIFIED

Department of the Navy FY 1989 R D T & E Program

Exhibit R-1

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26,369 U 3,026 U 265 U 1,747 U 2,045 U 9,357 U 7,801 U 1,449 U 13,160 U AMENDED FY 1989 18,753 22,390 4,670 1,057 Date: February 1988 Thousands of Dollars FY 1989 ADJUSTMENT -209 -36 5,724 -172 -48,674 -1,919 -3,688 -49 265 -13,171 -131 -4,420 -4,800 99--7,051 -6,737 FY 88/89 PRES BUDGET FY 1989 1,919 22,441 22,599 1,093 20,645 4,842 3,075 48,674 13,171 1,878 6,465 14,157 7,867 8,500 19,897 FY 1988 3,868 16,829 22,859 11,064 10,060 3,469 1,864 1,958 6,581 6,414 11,929 451 42,140 4,705 2,119 34,895 3,433 22,392 7,255 2,423 2,555 FY 1987 1,997 3,727 10,741 30,045 9,077 11,684 Act Navy Command and Control Systems (NCCS) Ashore Marine Corps Intelligence/Electronics Warfare Battle Group Passive Horizon Extension System Joint Interoperability of Tactical Command & Control Systems (JINTACCS)
JINTACCS Marine Corps Appropriation: 1319 N Research Development Test & Eval Navy Marine Corps Command/Control/Communications C2 Surveillance/Reconnaissance Support Marine Corps Combat Services Support Electromagnetic Spectrum Management Surface Warfare Training Devices Management and Technical Support Surface ASW System Improvement Regional Tactical Surveillance Air Warfare Training Devices Item Nomenclature Medical Developments F/A-18 Squadrons A-6 Squadrons LINK CYPRESS Intelligence System 0604711N 0604713N 0604714N 0604715N 0604717M 0604718M 0604719M 0604721N 0604725N 0604761N 0604763N 0604771N 0604779N 0604780M 0605803N 0605853N 0605867N 0204136N 0204134N Program Line Element Number 207 208 209 210 212 213 214 211 215 218 216 217 219 220 225 221 222 223

Department of the Navy FY 1989 R D T & E Program Date: February 1988

Exhibit R-1

FY 1989 R D T & E P.

Appropriation: 1319 N Research Development Test & Eval Navy

			į				Thousands of Dollars	Dollars
Line	Program ne Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	S AMENDED 6 FY 1989 C
226	0204152N	Early Warning Aircraft Squadrons	4	32,763	21,137	24.852	-1.748	11 POE 66.
227	0204161N	Aviation Support CVW	4	370	1,761	666.6	666.61	- = = = = = = = = = = = = = = = = = = =
228	0204163N	Fleet Telecommunications (Tactical)	4	25,194	5,872	1,405	1,128	0 583- 0
229	0204311N	Undersea Surveillance Systems	~	35,049	29,924	43,412	-2.474	
230	0204313N	Ship-Towed Array Surveillance Systems	4	5,552	6,093	4,447	-37	4,410 U
231	0204571N	Special Projects	4	7,014	9,786	7,465	-1,109	6,356 U
232	0204573N	Navy Cover and Deception Program	. 4	15,366		5,392	-5,392	
233	0204575N	Electronic Warfare (EW) Readiness Support	4	2,352		6,168	-6,168	· =
234	0204576N	Counter C3 Development	4	18,967		12,847	-12.847	) <u>=</u>
235	0205601N	HARM Improvement	4	2,192	3,719			· =
236	0205604N	Tactical Information System	•	38,017			115,535	מ שני
237	0205620N	ASW Combat Systems Integration	₩.	14,638	14,022	14.931	665	14 222 11
238	0205633N	Aircraft Equipment Reliability/Maintainability	4	1,720	1,988	458	-458	0 666164
239	0205658N	Laboratory Fleet Support	4	6,857	5,372	5,877	-361	5.516 !!
240	0205667N	F-14 Upgrade	<b>₹</b>	263,174	168,000	143,904	8.000	וו 904 ואר
241	0205670N	Tactical Intelligence Processing	7	2,301	2,036	2,155	-18	2.137 !!
242	0205674N	Electronic Warfare Counter Response	4	50,054		26,523	-26,523	
243	0205675N	Operational Reactor Development	4	18,310	27,749	39,587	-2,000	37.587 U
244	0206313M	Marine Corps Telecommunications	4	8,526	7,971	8,895	-456	8,439 U

UNCLASSIFIED

Department of the Navy FY 1989 R D T & E Program

Exhibit R-1

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App	ropriation	Appropriation: 1319 N Research Development Test & Eval Navy					Date: Fe	Date: February 1988
			1				Thousands o	of Dollars
Line	Program e Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED 6 PY 1989 C
245	0206623M	Marine Corps Ground Combat/Supporting Arms Systems		59,366	33,981	44,136	-285	43.851 11
246	0206624M	Marine Corps Combat Services Support	4	2,026	3,422	2,559	-43	2,516 U
247	0206625M	Marine Corps Intelligence/Electronics Warfare Systems	•	20,005	9,786	32,725	-14,983	17,742 U
248		Marine Corps Command/Control/Communications Systems	4	19,710	15,612	25,063	-6,004	19,059 U
249		Marine Corps Technical Support Command and Control System		6,325				<b>.</b>
250	0207316N	TACIT RAINBOW	4		10,461	968'5	-49	5,847 U
251	0208010M	Joint Tactical Communications Program (TRI-TAC)		5,165	2,314	2,850	-153	2,697 U
252	11100111	Force Enhancements-Active	<b>₹</b>		19,334		19,731	19,731 U
	Tactical	Tactical Programs	5,1	5,173,554	5,663,053	6,207,442	-215,002	5.992.440
253	0603783N	Integrated Platform Communications Development	S.	36,589			18.770	1 022 81
254	0604230N	Warfare Support System	ĸ		29,957	35.786	-2.501	22 206 11
255	0604231N	Tactical Command System	S		24,866	29,728	-13.375	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
256	0604232N	Communication Support System	ın		295,888	305,748	-305.748	0 555707
257	0604514N	Navigation Systems	ĸ	639		2.850	-2.850	
258	0604577N	EHP SATCOM	v.	42,856			29,297	29.297
259	0604777N	NAVSTAR GPS	ro.	63,414	52,792	75,578	-32,909	42,669 11
260	0605866N	Navy Command and Control Top Level Warfare Requirements	ĸ		2,925	4,806	-1,270	
261	0301303N	nal Intelligence Office	ĸ					
262	0301326N	PRAIRIE SCHOONER	<b>1</b> 6					

UNCLASSIFIED

Department of the Navy FY 1989 R D T & E Program

Exhibit R-1

Appropriation: 1319 N Research Development Test & Eval Navy

Number   Stemnit   Stemnic   Stemn	Argrichtsation: 1517 N Nesesion Development Test & Eval		***************************************	1111111					
Number   Team Nomenclature   Act   EY 1987   EY 1988	•	ı		į				Thousands of	of Dollars
0.301327N   Tachnical Reconnaisaance and Surveillance   5   9,752   10.0301327N   Tachnical Reconnaisaance and Surveillance   5   9,752   10.0303403N   Satellite Communications Security (COMSEC)   5   3,511   4,583   10.0303403N   Communications Security (COMSEC)   5   3,511   4,583   10.0303403N   Milstar Satellite Communications System   5   3,511   4,583   10.0303403N   Milstar Satellite Communications System   5   3,511   4,583   10.0303403N   Special Activities   5   3,511   4,583   10.0303403N   Special Activities   5   3,511   4,583   10.0303403N   Special Activities   6   29,985   11,565	Lin						FY 88/89		8
0303137N   Technical Reconnalisaance and Surveillance   5   9,752   100303109N   Satallite Communications System   5   3,511   4,583   100303401N   Communications Security (COMSEC)   5   3,511   4,583   100303603N   Milstar Satellite Communications System   5   3,511   4,583   100303603N   Milstar Satellite Communications System   5   3,511   4,583   10030411N   Special Activities   5   3,511   4,583   11,682   11,683	2		Item Nomenclature	Act	FY 1987	FY 1988	PY 1989	ADJUSTMENT	AMENDED e
0303109N   Satellite Communications   5   9,752     0303401N   Communications Security (COMSEC)   5   3,511   4,583     0303401N   Communications Security (COMSEC)   5   3,511   4,583     0303411N   Special Activities   5   3,511   4,583     0303411N   Special Activities   5   3,511   4,583     030411N   Special Activities   5   3,769   913,856   971     11041113ence and Communications   6   7,682   8,693     060372NN   NATO Research and Development (RISD)   6   7,682   8,596     060372NN   NATO Research and Development (RISD)   6   2,100     0604218N   Alt/Ocean Equipment Engineering   6   5,780   73,127     0604258N   Target Systems Development	63		Technical Reconnaissance and Surveillance	ĸ					
0303401N         Communications Security (COMSEC)         5         3,511         4,583           0303401N         Milatar Satellite Communications System         5         3,511         4,583           030411N         Special Activities         5         3,511         4,583           040411N         Special Activities         6         7,682         9,693           0603721N         Environmental Protection         6         7,682         8,693           0604208N         NATO Research and Development         6         29,985         8,693           0604218N         Alr/Ocean Equipment Engineering         6         8,7780         73,127         100           0604258N         Air/Ocean Equipment Engineering         6         8,780         73,127         10           0604258N         Air/Ocean Equipment Engineering         6         8,780         73,127         10           0604258N         Air/Ocean Equipment Engineering         6         8,780         7,886         978           0604258N         Air/Ocean Equipment Engineering         6         2,390         1,988         660           0605154N         Studies and Analysis Support - Navy         6         2,390         1,288         660           0605155N </td <td>64</td> <td></td> <td>Satellite Communications</td> <td>ĸ</td> <td>9,752</td> <td></td> <td></td> <td>16</td> <td></td>	64		Satellite Communications	ĸ	9,752			16	
0303603N         Hilstar Satellite Communications System         5         3,511         4,583           0304111N         Special Activities         5         3,511         4,583           Intelligence and Communications           0603721N         Bruironmental Protection         6         7,682         8,693           0603721N         NATO Research and Development         6         29,985         8,586           060420BN         NATO Research and Development         6         87,780         73,127         100           060420BN         NATO Research and Development         6         87,780         73,127         100           060421BN         Air/Ocean Equipment Engineering         6         87,780         73,127         100           060421BN         Air/Ocean Equipment Engineering         6         3,946         978         978           060421BN         Personnel, Training, Simulation, and Human Factors         6         2,390         1,886         2,300           060421BN         Studies and Analysis Support - NC         6         2,390         1,986         2,280           0605153N         Studies and Analysis Support - Navy         6         5,288         3,337         6           0605155N         Fleet T	65		Communications Security (COMSEC)	S					0 1/4/17
Intelligence and Communications   625,769   913,656   970,603   970,603   970,603   970,603   970,603   970,603   970,769	99		Milstar Satellite Communications System	'n	3,511	4,583	4.800	69-	
Intelligence and Communications         625,769         913,856         97           0603721N         Rnvironmental Protection         6         7,682         8,693         913,856         97           0603721N         NATO Research and Development         6         29,985         8,586         9,586         9,586         9,586         9,586         9,985         9,586         9,586         9,985         9,985         9,586         9,985         9,586 <td>57</td> <td></td> <td>Special Activities</td> <td>ى د</td> <td></td> <td></td> <td></td> <td>2</td> <td>15/14</td>	57		Special Activities	ى د				2	15/14
0603721N         Environmental Protection         6         7,682         8,693           0603790N         NATO Research and Development         6         29,985           060420BN         Range Instrumentation Systems Development (RISD)         6         11,565         8,586           0604218N         Air/Ocean Equipment Engineering         6         5,661         2,110           0604258N         Target Systems Development         6         87,780         73,127         10           0604258N         Target Systems Development         6         87,780         73,127         10           0604703N         Personnel, Training, Simulation, and Human Factors 6         3,946         978           0605151M         Studies and Analysis Support - NC         6         2,390         1,889           0605152N         Studies and Analysis Group; CNA         6         4,078         4,359           0605153H         Marine Corps Operations Analysis Group; CNA         6         19,870         19,456         2,333           0605155N         Pleet Tactical Development and Evaluation         6         1,396         1,283         1           0605156W         Marine Corps Operational Test and Evaluation         6         1,396         1,283         1		Intellig	ence and Communications		625,769	913.856	077 230		
0604208N         Range Instrumentation Systems Development (RISD)         6         29,985           0604208N         Range Instrumentation Systems Development (RISD)         6         11,565         8,586           0604208N         Air/Ocean Equipment Engineering         6         5,661         2,110           0604258N         Target Systems Development         6         87,780         73,127         10           0604703N         Target Systems Development         Aiget Systems Development         6         2,390         1,888           0604703N         Personnel, Training, Simulation, and Human Factors         6         2,390         1,888           0605151M         Studies and Analysis Support - MC         6         2,390         1,888           0605152N         Studies and Analysis Group, CNA         6         5,288         3,337           0605153H         Marine Corps Operations Analysis Group, CNA         6         19,476         12,233           0605155N         Pleet Tactical Development and Evaluation         6         13,670         12,233         14           0605155N         Pleet Tactical Development and Evaluation         6         1,396         1,283         1,283           0605156N         Maxine Corps Operational Test and Evaluation         6 <td< td=""><td>80</td><td></td><td>Environmental Protection</td><td>9</td><td>7.682</td><td>8.693</td><td>7 403</td><td>076,427</td><td>£1/,1c/</td></td<>	80		Environmental Protection	9	7.682	8.693	7 403	076,427	£1/,1c/
0604208N         Range Instrumentation Systems Development (RISD)         6         5.661         2,110           0604218N         Air/Ocean Equipment Engineering         6         5.661         2,110           0604258N         Target Systems Development         6         87,780         73,127         10           0604258N         Target Systems Development         6         3,946         978         978           0604153N         Personnel, Training, Simulation, and Human Factors 6         2,390         1,888         978           0605151N         Studies and Analysis Support - MC         6         2,390         1,888           0605152N         Studies and Analysis Group, CNA         6         4,078         4,359           0605154N         Center for Naval Analysis Group, CNA         6         19,476         12,233           0605155N         Fleet Tactical Development and Evaluation         6         13,670         12,233           0605156N         Maxine Corps Operational Test and Evaluation         6         1,396         1,283           0605552N         Small Business Innovative Research         6         57,321         1,286	0		NATO Research and Development	9	29,985			696 / T-	9,814
0604218N         Air/Ocean Equipment Engineering         6         5,661         2,110           0604258N         Target Systems Development         6         87,780         73,127         10           0604703N         Personnel, Training, Simulation, and Human Factors         6         2,390         1,888           0605152N         Studies and Analysis Support - MC         6         2,390         1,888           0605152N         Studies and Analysis Support - Navy         6         5,288         3,337           0605154N         Marine Corps Operations Analysis Group, CNA         6         4,078         4,359           0605154N         Center for Naval Analyses         6         19,456         2           0605155N         Pleet Tactical Development and Evaluation         6         13,670         12,233         1           0605156M         Marine Corps Operational Test and Evaluation         6         1,396         1,283         1,283	0			9	11,565	8,586	7.529	-401	6
0604258N         Target Systems Development         6         87,780         73,127         10           0604703N         Personnel, Training, Simulation, and Human Factors         6         2,390         1,888           0605151M         Studies and Analysis Support - MC         6         2,390         1,888           0605152N         Studies and Analysis Support - Navy         6         5,288         3,337           0605153M         Marine Corps Operations Analysis Group, CNA         6         19,670         19,456         2           0605155N         Fleet Tactical Development and Evaluation         6         13,670         12,233         1           0605155M         Marine Corps Operational Test and Evaluation         6         1,396         1,283           0605156M         Marine Corps Operational Test and Evaluation         6         57,321         1,283	_	0604218N	Air/Ocean Equipment Engineering	9	5,661	2,110	2.904	164	מ מנה ל
0604703N         Personnel, Training, Simulation, and Human Factors 6         3,946         978           0605151M         Studies and Analysis Support - MC         6         2,390         1,888           0605152N         Studies and Analysis Support - Navy         6         5,288         3,337           0605153N         Marine Corps Operations Analysis Group, CNA         6         4,078         4,359           0605154N         Center for Naval Analyses         6         19,870         19,456         2           0605155N         Fleet Tactical Development and Evaluation         6         13,670         12,233         1           0605156H         Marine Corps Operational Test and Evaluation         6         1,396         1,283           0605156H         Marine Corps Innovative Research         6         57,321	N	0604258N	Target Systems Development	9	87.780	73.127	102 201	567	0 TTT'2
0605151M         Studies and Analysis Support - MC         6         2,390         1,888           0605152N         Studies and Analysis Support - Navy         6         5,288         3,337           0605153M         Marine Corps Operations Analysis Group, CNA         6         4,078         4,359           0605154N         Center for Naval Analyses         6         19,870         19,456         2           0605155N         Fleet Tactical Development and Evaluation         6         13,670         12,233         1           0605156M         Marine Corps Operational Test and Evaluation         6         1,396         1,283           0605502N         Small Business Innovative Research         6         57,321	m	0604703N	Personnel, Training, Simulation, and Human Factors	v	3.946	820	107/501	127.6	93,974
0605152N         Studies and Analysis Support - Navy         6         5,288         3,337           0605153M         Marine Corps Operations Analysis Group, CNA         6         4,078         4,359           0605154N         Center for Naval Analyses         6         19,870         19,456         2           0605155N         Fleet Tactical Development and Evaluation         6         13,670         12,233         1           0605156M         Marine Corps Operational Test and Evaluation         6         1,396         1,283           0605502N         Small Business Innovative Research         6         57,321	4	0605151M	Studies and Analysis Support - MC	v	2 380			66617	
0605153H         Marine Corps Operations Analysis Group, CNA         6         4,078         4,359           0605154N         Center for Naval Analyses         6         19,870         19,456         2           0605155N         Flaet Tactical Development and Evaluation         6         13,670         12,233         1           0605156H         Marine Corps Operational Test and Evaluation         6         1,396         1,283         0           0605502N         Small Business Innovative Research         6         57,321         57,321	25	0605152N	Studies and Analysis Support - Navy	٠ ٧	, c	1,000	101.2	-188	1,913 U
0605154N Center for Naval Analyses 0605154N Center for Naval Analyses 0605155N Fleet Tactical Development and Evaluation 6 13,670 12,233 1 0605156H Marine Corps Operational Test and Evaluation 6 1,396 1,283	9	0605153H		, ,	90716	3,33/	968'5	-2,286	3,610 U
0605502N Small Business Innovative Research	-	0,000		٥	4,078	4,359	4,517	-1	4,516 U
UbUSISSN Fleet Tactical Development and Evaluation 6 13,670 12,233 1 0605156M Marine Corps Operational Test and Evaluation 6 1,396 1,283 0605502N Small Business Innovative Research 6 57,321	•	Nactonen	Center for Naval Analyses	v	19,870	19,456	21,532	-3,769	17,763 U
0605502N Marine Corps Operational Test and Evaluation 6 1,396 1,283	<b>20</b> (	Neetcoan	Figet Tactical Development and Evaluation	œ	13,670	12,233	16,484	-2,622	13,862 U
0605502N Small Business Innovative Research 6	on .	0605156M	Marine Corps Operational Test and Evaluation	9	1,396	1,283	1,490	-190	1,300 U
	0	0605502N	Small Business Innovative Research	. •	57,321				1

Page N-15

Department of the Navy FY 1989 R D T & E Program

Exhibit R-1

Appropriation: 1319 N Research Development Test & Eval Navy

AMENDED e FY 1989 c 2,599 U 3,693 U 5,246 U 51,751 U 325,365 U 86,560 U 29,915 U 8,591 U n 696 261 U 879 U 2,136 U 43,482 U 9,216,200 Date: February 1988 714,373 Thousands of Dollars FY 1989 Adjustment -326 -8,238 -3,778 -200 -111 -7,611 191'11---144 -2,470 -59,203 -828,619 PRES BUDGET FY 1989 3,362 55,529 FY 88/89 13,484 3,974 30,241 94,171 1,080 263 8,791 988 2,280 10,044,819 336,526 45,952 773,576 2,640 90,726 FY 1988 4,691 1,254 53,645 8,720 926 3,213 310,000 948 3,893 41,494 42,331 700,563 9,512,917 4,039 49,673 20,579 FY 1987 2,524 957 3,180 9 73,795 296,864 7,310 2,691 750,895 9,292,433 37,961 Act RDT6E Laboratory and Facilities Management Support Defense Meteorological Satellite Program (DMSP) Marine Corps Tactical Exploitation of National Capabilities RDT&E Instrumentation and Materiel Support Operational Test and Evaluation Capability Marine Corps Development Center Support RDTEE Ship and Aircraft Support Technical Information Services Total Research Development Test & Eval Navy Test and Evaluation Support Item Nomenclature Productivity Investments Industrial Preparedness International RDT&E Defensewide Mission Support Weather Service Program Line Element No Number 0605804N 0605854M 0605862N 0605857N 0605861N 0605863N 0605864N 0605865N **0605871M** 0605872N 0305111N 0305160N 0708011N 282 281 283 284 285

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289 290 291 292 293 UNCLASSIFIED

Page N-16

Department of the Air Force FY 1989 R D T & E Program

Summary

Exhibit R-1

	Summary			Date: F	February 1988
				Thousands	of Dollars
	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 Adjusthent	AMENDED FY 1989
Summary Recap of Research Categories					
Research Exploratory Development	221,085 562,046	198,401	245,522	-45,855	199,667
Advanced Development Engineering Development Management and Support	3,549,703 3,566,796 1,037,023	4,263,525 3,969,553 548,840	4,421,922 6,785,683 597,916	-1,923,994 -1,425,218 -30,673	582,865 2,497,928 5,360,465
Research and Development (FYDP Program 6) Operational Systems Development	8,936,653 6,113,870	9,537,289	12,681,754	-3,473,586	9,208,168
Total Research Development Test & Eval AF	15,050,523	,165	9,57	4	932
Summary Recap of Budget Activities					
Technology Base Advanced Technology Davelonment	783,131	755,371	876,233	-93,701	782,532
Strategic Programs	5,592,700	754,813 5,886,847	986,771 8.137.069	-202,546 -2,778,183	784,225
Tactical Programs Intelligence and Communications	3,631,177	4,031,360	4,210,694	•	4,265,852
Defensewide Mission Support Total Research Davelonment Cost & B	,062,59		1,493,170	- i	1,715,108
	15,050,523	15,165,388	17,728,571	-2,796,471	14,932,100
Summary Recap of FYDP Programs					
Strategic Forces General Purpose Forces	737,160	564,401	545,496	-76,672	468,824
Intelligence and Communications Airlift/Sealift	4,023,811	3,809,462	3,329,212	503,713	1,047,203
Guard and Reserve	•	59,965	83,367	64-	12,934 83,288
Central Supply and Maintenance Training Medical and Other	8,936,653 79,349 8,428	9,537,289 103,705	12,681,754 120,840	-3,473,586 -1,082	9,208,168
Support of Other Nations Special Operations Forces	2,721	3,107	3,156	581 155,263	3,737
Total Research Development Test & Eval AF	15,050,523	15,165,388	17,728,571	-2,796,471	

UNCLASSIFIED

Date: February 1988 Exhibit R-1

Department of the Air Force FY 1989 R D T & E Program

Appropriation: 3600 F Research Development Test & Eval AP

Transmitten		9		İ				Thousands of Dollars	f Dollars
Number   Team Nomenclature   Act   FY 1980	Lin						FY 88/89		
10 001101P   In-House laboratory Independent Research   1 14,996   15,653   16,733   -6,510     2 0601102P   Defense Research Sciences   1 197,619   182,748   204,196   -14,752   1 1,000     3 0601103P   University Research Sciences   1 197,619   182,748   204,196   -14,752   1 1,000     4 0602101P   Geophysics   1 1,752   1 1,752   1 1,752   1 1,752   1 1,752   1 1,752     5 0602102P   Materials   1 1,752   1 1,752   1 1,752   1 1,752   1 1,752   1 1,752     5 0602102P   Materials   1 1,752   1 1,752   1 1,759   1 1,759   1 1,759   1 1,759     6 0602202P   Materials   1 1,759   1 1,759   1 1,759   1 1,759   1 1,759   1 1,759     6 0602202P   Materials   1 1,759   1 1,759   1 1,759   1 1,759   1 1,759   1 1,759   1 1,759     6 0602202P   Materials   1 1,759   1 1,759   1 1,759   1 1,759   1 1,759   1 1,759   1 1,759     6 0602203P   Materials   1 1,759   1 1,779	2		Item Nomenclature	Act	FY 1987	FY 1988	PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	
2 0601102P Defense Research Sciences 2 0601103P University Research Sciences 3 0601103P University Research Initiatives 4 0602101P Goophysics 5 0602102P Astronals 5 0602102P Astronals 6 0602201P Astronals 6 0602201P Astronals 7 0602201P As	4		In-House Laboratory Independent Research	-	14.998	15 663			!
06021019	~		Defense Research Schene	٠ :		60000	TD://33	-6,510	10,223 U
0.0021015   Muherity Research Initiatives   1   0.468   24,593   -24,593	•			<b>,</b>	197,619	182,748	204,196	-14,752	189,444 U
0.002101F   Gaophysics   1   37,552   35,832   42,436   -7,598   1   54,290   54,856   63,064   -4,697   1   60,2201F   Human Systems Technology   1   77,661   67,698   72,059   -2,790   1   77,662   72,059   -2,790   -2,790   1   77,662   72,059   -2,790   -2,790   1   77,662   72,059   -2,790   -2,790   -2,790   1   77,662   73,073   -5,202   -2,790   -2,7	•		University Research Initiatives	-	8,468		24,593	-24,593	ם
602201F         Materials         1         54,290         54,656         63,064         -4,697           0602201F         Aerospace Flight Dynamics         1         70,861         67,698         72,059         -2,790           0602201F         Human Systems Technology         1         47,460         48,946         54,996         -5,195           0602201F         Aerospace Propulsion         1         59,159         61,813         69,733         -5,202           0602202F         Aerospace Avionics         1         61,822         59,773         73,073         -6,606           0602202F         Personnel, Training and Simulation         1         23,518         31,916         36,810         -5,784           0602202F         Civil Engineering and Environmental Quality         1         6,346         6,046         -5,784           0602202F         Civil Engineering and Environmental Quality         1         37,972         38,423         44,283         -5,131           0602602F         Conventional Munitions         1         37,990         34,846         37,304         -2,619           0602702F         Command Control and Communications         1         77,695         75,640         84,061         1,120 <td< td=""><td>4</td><td>0602101F</td><td>Geophysics</td><td>1</td><td>37,552</td><td>35,832</td><td>42,436</td><td>-7,598</td><td></td></td<>	4	0602101F	Geophysics	1	37,552	35,832	42,436	-7,598	
0602201F   Human Systems Technology   1   70,861   67,696   72,059   -2,790     0602202F   Human Systems Technology   1   47,460   48,946   54,996   -5,195     0602202F   Accompace Propulation   1   59,159   61,813   69,733   -5,202     0602202F   Accompace Avionics   1   59,159   61,813   69,733   -5,202     0602202F   Personnel, Training and Simulation   1   23,518   31,916   56,40   -5,784   -5,784     0602202F   Civil Empireering and Environmental Quality   1   6,345   6,640   6,046   -5,784   -5,131     0602202F   Civil Engineering and Environmental Quality   1   6,345   6,640   6,046   -2,619   -2,619     0602202F   Conventional Munitions   1   37,990   34,846   37,304   -2,619   -2,619     0602702F   Conventional Munitions   1   37,990   34,846   37,304   -2,619   -2,619     0602702F   Personnel Utilization Technology   1   6,081   -2,531   -2,209   1     Technology Base   Technology   2   11,477   9,574   19,645   -3,209   1     0603109F   INEWS/ICMIA   2   102,453   65,300   40,986   -3,536   3	<u>د</u>	0602102F	Haterials	4	54,290	54,856	63,064	-4,697	58.367
0602203F   Human Systems Technology   1 47,460   48,946   54,996   -5,195   49,801     0602203F   Acrospace Propulation   1 59,159   61,813   69,733   -5,202   64,531     0602203F   Personnel, Training and Similation   1 23,518   31,916   36,810   -5,784   31,026     0602205F   Civil Engineering and Environmental Quality   1 6,345   6,640   6,046   -5,784   31,026     0602202F   Conventional Hunitions   1 37,990   34,846   37,304   -2,619   34,685     0602203F   Conventional Hunitions   1 37,990   34,846   37,304   -2,619   34,685     0602703F   Conmand Control and Communications   1 77,695   75,640   84,061   1,120   85,181     1	9	0602201F	Aerospace Flight Dynamics	-	70,861	64,698	72,059	-2,790	11 696 69
0602203F   Aerospace Propulation   1   59,159   61,813   69,733   -5,202   64,531     0602203F   Personnel, Training and Simulation   1   23,518   31,916   36,910   -5,784   31,026     0602205F   Civil Engineering and Simulation   1   23,518   31,916   36,810   -5,784   31,026     0602205F   Civil Engineering and Simulation   1   23,518   31,916   6,046   -5,784   31,026     0602205F   Conventional Munitiona   1   37,972   38,423   44,283   -5,131   39,152     0602502F   Conventional Munitiona   1   37,990   34,846   37,304   -2,619   34,685     0602702F   Command Control and Communications   1   77,695   75,640   84,061   1,120   85,181     Technology Base   Technology   2   11,477   9,574   19,645   -3,209   16,436     0603109F   INEWS/ICNIA   2   102,453   65,300   40,958   -3,535   37,433     0603109F   INEMS/ICNIA   2   10,458   -3,535   37,433     0603109F   INEMS/ICNIA   2   10,458   -3,535   37,433     0603109F   INEMS/ICNIA   2   10,458   -3,535   37,433     0603109F   10,453   10,453   10,453   10,453     0603109F   10,453   10,453   10,453   10,453     0603109F   10,455   10,453   10,453     0603109F   10,453   10,453   10,453   10,453     0603109F   10,453   10,453   10,453   10,453     0603109	~	0602202F	Human Systems Technology	-	47,460	48,946	54,996	-5,195	49.801 11
0602205F   Personnel, Training and Simulation   1   23,518   31,916   56,467   36,400   66,467   31,026   66,467   31,026   66,467   31,026   66,467   31,026   66,467   31,026   66,467   31,026   66,467   31,026   66,467   31,026   66,467   31,026   66,467   31,026   66,467   31,026   66,467   6002205F   Rocket Propulation   1   37,972   38,423   44,283   -5,131   39,152   6002602F   Conventional Munitions   1   37,990   34,846   37,304   -2,619   34,685   6002702F   Command Control and Communications   1   77,695   75,640   84,061   1,120   85,181   86,031   755,371   876,233   -93,701   782,532   783,131   755,371   876,233   -93,701   782,532   78,030   40,958   -3,535   37,503   78,030   40,958   -3,535   37,503   78,030   40,958   -3,535   37,503   78,030   40,958   -3,535   37,503   78,030   40,958   -3,535   37,503   78,030   40,958   -3,535   37,503   78,030   40,958   -3,535   37,503   78,030   40,958   -3,535   37,503   78,030   40,958   -3,535   37,503   78,030   40,958   -3,535   37,503   78,030   40,958   -3,535   37,503   44,007   40,958   -3,535   44,007   40,958   -3	<b></b>	0602203F	Aerospace Propulsion	-	59,159	61,813	69,733	-5.202	64.531
0602205F         Personnel, Training and Simulation         1         23,518         31,916         36,810         -5,784         31,026           0602206F         Civil Engineering and Environmental Quality         1         6,345         6,640         6,046         -5,784         31,026           0602202F         Rocket Propulsion         1         37,972         38,423         44,283         -5,131         39,152           0602602F         Advanced Weapons         1         37,990         34,846         37,304         -2,619         34,685           0602602F         Conventional Munitions         1         37,990         34,846         37,304         -2,619         34,685           0602702F         Command Control and Communications         1         77,695         75,640         84,061         1,120         85,181           Technology         1         8,081         75,640         84,061         1,120         85,181           Technology         1         8,081         75,540         84,061         1,120         85,181           Technology         2         11,477         9,574         19,645         -3,701         72,53           100,3109F         INEMS/ICNIA	o,	0602204F	Aerospace Avionics	7	61,822	59,773	73.073	909'9-	
0602302F         Civil Engineering and Environmental Quality         1         6,345         6,640         6,046         -505           0602302F         Rocket Propulsion         1         37,992         38,423         44,283         -5,131           0602601F         Advanced Weapons         1         37,990         34,846         37,304         -2,619           0602602F         Conventional Munitions         1         39,301         40,587         46,846         -2,619           0602702F         Command Control and Communications         1         77,695         75,640         84,061         1,120         8           0602703F         Personnel Utilization Technology         1         8,081	0	0602205F	Personnel, Training and Simulation		23,518	31,916	0 (8, AF	700	
0602302F         Rocket Propulsion         1         37,972         38,423         44,283         -5,131         3,541           0602601F         Advanced Weapons         1         37,990         34,846         37,304         -2,619         34,685           0602602F         Conventional Munitions         1         39,301         40,587         46,846         -2,619         34,685           0602702F         Conmand Control and Communications         1         77,695         75,640         84,061         1,120         85,181           0602703F         Personnel Utilization Technology         1         8,081         755,371         876,233         -93,701         782,532           0603106F         Logistics Systems Technology         2         11,477         9,574         19,645         -3,239         16,436           0603109F         INEMS/ICNIA         2         102,453         85,300         40,958         -3,535         37,433	-4	0602206F	Civil Engineering and Environmental Quality	7	6.345	6.640	910/05	*0//0	31,026 U
0602601F         Advanced Weapons         1         37,990         34,846         37,304         -2,619         34,685           0602602F         Conventional Munitions         1         39,301         40,587         46,846         -2,619         34,685           0602702F         Command Control and Communications         1         77,695         75,640         84,061         1,120         85,181           0602703F         Personnel Utilization Technology         1         8,081	a	0602302F	Rocket Propulsion	_	27 673		950 49	-505	5,541 U
0602602F         Conventional Munitions         1         37,990         34,846         37,304         -2,619         34,685           0602702F         Command Control and Communications         1         77,695         75,640         84,061         1,120         85,181           0602703F         Personnel Utilization Technology         1         8,081	_	0602601F	Advanced Weapons	٠.	716116	36,423	44,283	-5,131	39,152 U
0602702F Command Control and Communications 0602702F Command Control and Communications 0602703F Personnel Utilization Technology Technology Base 0603106F Logistics Systems Technology 0603106F INEWS/ICNIA 2 102,453 65,300 40,958 -3,535 37,422	_	0602602F	Content town I amount of	4	37,990	34,846	37,304	-2,619	34,685 U
D602703F         Personnel Utilization Technology         1         77,695         75,640         84,061         1,120         85,181           D602703F         Personnel Utilization Technology         1         8,081				-	39,301	40,587	46,846	-2,839	44,007 U
0602703F     Personnel Utilization Technology     1     8,081       Technology Base     783,131     755,371     876,233     -93,701       0603106F     Logistics Systems Technology     2     11,477     9,574     19,645     -3,209     16,436       0603109F     INEMS/ICNIA     2     102,453     65,300     40,958     -3,535     37,432	_	J20/2000	Command Control and Communications	-	77,695	75,640	84,061	1,120	85.181
Technology Base  783,131 755,371 876,233 -93,701 7 0603109F INEWS/ICNIA 2 11,477 9,574 19,645 -3,209 0603109F INEWS/ICNIA 2 102,453 85,300 40,958 -3,535		0602703F	Personnel Utilization Technology	-	8,081				
0603106F Logistics Systems Technology 2 11,477 9,574 19,645 -3,209 0603109F INEWS/ICNIA 2 102,453 85,300 40,958 -3,535		Technolog	y Base		783,131	755,371	876.233		
0603109F INEWS/ICNIA 2 102,453 85,300 40,958 -3.535	_	0603106F	Logistics Systems Technology	8	11,477	9,574	19,645	-3.209	
		0603109F	Inews/Icnia	7	102,453	85,300	40,958	-3.535	

UNCLASSIFIED

Page F-1 \_ O\_

Department of the Air Force FY 1989 R D T & E Program

Exhibit R-1

Date: February 1988

Appropriation: 3600 F Research Development Test & Eval AF

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O 27,921 U 21,439 U 8,038 U 22,259 U 23,980 U 244,767 U 35,667 U 8,995 U AMENDED FY 1989 21,099 30,114 32,666 25,132 14,028 Thousands of Dollars FY 1989 ADJUSTMENT -6,726 -11,529 -1,523 -3,213 -6,821 -5,427 -2,521 -5,157 -20,552 -4,705 -8,924 -6,259 -1,014 -61,521 35,667 FY 88/89 PRES BUDGET FY 1989 27,825 41,643 33,348 20,552 12,743 24,780 28,260 37,823 32,904 6,259 26,655 15,042 306,288 12,208 FY 1988 20,000 10,030 26,000 26,999 18,242 20,602 15,673 2,992 8,481 22,352 22,000 183,000 6,259 39,515 27,312 20,937 2,723 FY 1987 25,210 5,604 23,694 2,196 6,685 4,072 28,859 5,604 16,594 4,957 26,500 5,555 1,632 Act Crew Systems and Personnel Protection Tachnology Advanced Electronics for Aerospace Vehicles (H) Common Programming Language (Ada) Advanced Develop Personnel, Training and Simulation Technology Aerospace Fuels and Propulsion Technology (H) Cartographic Application for Tactical and Strategic Systems (H) National Aero Space Plane Technology Program Aerospace Propulsion Subsystems Integration Aerospace Propulsion and Power Technology Advanced Avionics for Aerospace Vehicles Advanced Fighter Technology Integration Space and Missile Rocket Propulsion Aerospace Structure and Materials Advanced Avionics Integration Aerospace Vehicle Technology Item Nomenclature Weapon Systems Power Concept Development Lincoln Laboratory EW Technology 200 Program Line Element No Number 0603202F 0603203F 0603205F 0603208F 0603211F 0603215F 0603216F 0603217F 0603226F 0603227F 0603231F 0603245F 0603250F 0603259F 0603248F 0603253F 0603269F 0603270F 0603302F 19 20 22 23 24

Page F-2

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Department of the Air Force FY 1989 R D T & E Program

Date: February 1988 Exhibit R-1

Appropriation: 3600 F Research Development Test & Eval AF

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Line No	Fiogram e Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTHENT	AMENDED 6'	
38	0603363F	Hypervelocity Missile	. ~	9,273	10,626	7,783	-1,206	6.577 !!	
39	0603401F	Advanced Spacecraft Technology	8	12,932	4,000	10,103	-2,108	U 399.7	•
<b>•</b>	0603410F	Space Systems Environmental Interactions Technology	8	3,491	3,825	3,934	<b>*</b> -		
41	0603452F	Very High Speed Integrated Circuits	8	126,426	100,000	58,127	-14,041	44,086 U	
42	0603601F	Conventional Weapons	8	27,984	11,552	31,519	-6,218	25,301 U	
43	0603605F	Advanced Weapons Technology		39,088	71,650	34,766	39,728		
44	0603704F	Manpower and Personnel Systems Technology (H)	8	1,442					
45	0603707F	Weather Systems - Adv Dev	7	4,047	5,276	5,838	-504	5.334 II	
46	0603723F	Civil and Environmental Engineering Technology	8	7,803	11,827	11,324	-2.310	0.014	
47	0603726F	C3I Subsystem Integration	7	2,714	5,220	9,634	-1.608	8.026 11	
48	0603727F	Advanced Communications Technology (H)	7	4,956			•		
49	0603728F	Advanced Computer Technology	7	086'9	4,128	12,249	-2.010		
20	0603743F	Electronic Combat Technology	~	38,443		47,600	-47.600		
51	0603745F	Chemical Warfare Defense (H)	8	4,946				<b>:</b>	
52	0603750F	Counter-Countermeasures (CCM) (H)	7	5,917				<b>.</b>	
23	0603751F	Training Systems Technology	8	1,823	276	471	. 7	) ;	
<b>S</b> .	0603752F	DoD Software Engineering Institute	8	14,195	18,929	18.794	18.794	₽ : 0/ <b>*</b>	
55	0603789F	C3I Technology Development	~	13,448	30,000	47,696	-28,901	U 36,795 U	•
	Advanced	Advanced Technology Development		687,487	754,813	986,771	-202,546	784,225	

UNCLASSIFIED

Exhibit R-1

Department of the Air Force FY 1989 R D T & E Program Appropriation: 3600 F Research Development Test & Eval AF

App	Appropriation:	: 3600 F Research Development Test & Eval AF	1				Date: F	Date: February 1988
			ļ				Thousands	of Dollars
Line No	Program e Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED 6 FY 1989 C
99	0603110F	Special Evaluation Program	м					
57	0603111F	Meridian	m					
28	0603265F	Long Range Conventional Cruise Missile	ю				50,000	. 000.03
29	0603311F	Advanced Strategic Missile Systems	m	149,997	133,640	151,979	-143	151.836 II
9	0603312F	Advanced Concepts	e			•		
61	0603364F	Short Range Attack Missile II (SRAM II)	m	65,547	174,320	231,589	-122	231,467 U
62	0603367F	Relocatable Target Capability Program	m	4,494	9,961	23,723	-4,018	
63	0603368P	Air Defense Battle Management Technology	m	4,198	٠	35,820	-35,820	
<b>9</b>	0603369F	Cruise Missile Engagement Systems Technology	м	503		35,035	-35,035	) <b>5</b>
9	0603424F	Cruise Missile Surveillance Technology	m	14,843				· =
99	0603716F	Atmospheric Surveillance Technology	m	16,014		1,604	-j,604	<b>)</b>
69.	0603717F	Technical On-site Inspection Program	m	10,452	10,627	3,613	5,478	9.291 11
89	0603735F	WWMCCS Architecture	М	5,859		289	-289	
69	0603738F	ADI Surveillance Technology	m			138,900	-138,900	• =
20	0604216F	WWABNCP System Replacement	m			13,796	-13,796	. =
11	0604226F	B-1B	· M	115,728	366,841	386,726	-165,135	221,591 U
72	0604234F	Common Strategic Rotary Launcher	м	12,303	5,693	947	1-	946 11
73	0604240F	B-2 Advanced Technology Bomber	ei					
74	0604312F	ICBM Modernization	m	1,143,499	1,068,268	3,461,672	-2,428,781	1,032,891 U

Date: February 1988

Exhibit R-1

Department of the Air Force FY 1989 R D T & E Program

Appropriation: 3600 F Research Development Test & Eval AF

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8,333 U Þ 10,000 U 3,176 U 01,069 U 1,210 U 20,298 U 70,616 U 22,982 U 2,533 U AMENDED FY 1989 957 Thousands of Dollars FY 1989 ADJUSTMENT 10,000 7 -385,812 -3,007 -1,003 -138,546 20,298 18,034 -1,022 FY 88/89 PRES BUDGET FY 1989 958 4,179 385,812 11,340 1,203 199,615 24,004 52,582 2,536 7,969 FY 1988 3,577 4,019 131,852 12,926 84,295 939 20,321 23,410 57,624 2,256 4,719 FY 1987 28,188 169,211 12,793 421 52,439 1,513 34,923 13,715 42,882 2,874 Act War Planning Automated Data Processing (ADP) - SAC Strategic Conventional Standoff Capability (SCSC) PACCS and WWABNCP System EC-135 Class V Mods Ballistic Missile Tactical Warning/Attack Assessment System Joint Surveillance System Systems Survivability (Nuclear Effects) Aircraft Survivability Enhancements Air Launched Cruise Missile (ALCM) NCMC - Space Defense Systems Item Nomenclature Advanced Cruise Missile Space Defense System NCMC - TW/AA Systems Minuteman Squadrons SAC Communications KC-135 Squadrons Program Line Element No Number 0604326F 0604361F 0604406F 0604711F 0101120F 0101135F 0101213F 0101142F 0101312F 01013138 0101316F 0102311F 0102310F 0102313F

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19,201

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19,218

8,444 31,326 19,172

27,007

Ballistic Missile Early Warning System (BMEWS)

Distant Barly Warning (DEW) Radar Stations

Surveillance Radar Stations/Sitès

0102325F 0102411F 0102412F 0102417F 0102423F

89 90 Over-the-Horizon Backscatter Radar

92 16

25,362 U

1,751 U

1,754 1,671

2,147

3,234 15,917 11,721 29,895 15,338

5,204

Department of the Air Force FY 1989 R D T & E Program

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Appı	Appropriations	3600 F Research Development Test & Byal AF	 				Date: Fe	Date: February 1988	
							Thousands o	of Dollars	
Line	Program B Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTHENT	S AMENDED e FY 1989 C	
96	0102424F	SPACETRACK	m	14,319	7,600	10,966	-1,609	9,357 U	
95	0102431F	Defense Support Program	m	112,399	88,462	95,214	-11,082	84,132 U	
96	0102432F	Submarine-Launched Ballistic Missile (SLBM) Radar Warning System	m	13,727	17,246	10,175	-10	10,165 U	
97	0102433F	NUDET Detection System	m	23,212	7,369	10,932	-10	10,922 U	
86	0102436F	Command Center Processing and Display System	m	21,442	29,437	38,064	-11,125	26,939 U	
66	0102822F	LEO	m				-		-
100	0303131F	Minimum Essential Emergency Communications Network (MEECN)	м	619'95	50,402	34,231	6,802	41,033 U	
101	0303152F	World-Wide Military Command and Control Systems, Information System	M	165'9	5,087	5,319	-3,002	2,317 U	
102	0303154F	WWMCCS Information System Joint Program Management Office	m	94,928	21,406	91,425	-25,062	П Е9Е'99	
103	0303601F	Milstar Satellite Communications System (AF	m	258,562	198,226	310,353	9-	310,347 U.	
104	0303603F	Milstar Satellite Communications System	m	473,205					
50 <b>†</b>	0305124F	Special Applications Program	m						
901	0305172F	BERNIE	m	٠					
107	0305892F	Special Analysis Activities	ო					.•	
108	0401123F	Military Airlift Group (IF)	m	8,664	9,952	192	1	n 661	
	Strategic	Strategic Programs	•	5,592,700	5,886,847	8,137,069	-2,778,183	5,358,886	
109	0603107F	Technical Evaluation System	4				•		
110	0603230F	Advanced Tactical Fighter	4	261,342	498,054	702,995	-712	702,283 U	
111	0603239F	Unmanned Air Reconnaissance System (UARS)	4	3,787		8,831	-8,831	Þ	

UNCLASSIFIED

UNCLASSIFIED

Date: February 1988

Exhibit R-1

Department of the Air Force FY 1989 R D T & E Program

Appropriation: 3600 F Research Development Test & Eval AF

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4,994 U 5,128 U 12,453 U 1,138 U n 986 19,630 U 1,949 U 957 U AMENDED FY 1989 Thousands of Dollars FY 1989 ADJUSTMENT -802 4 -12 -25,584 7 7 -1,001 -25 -3,018 -1,872 FY 86/89 PRES BUDGET FY 1989 25,584 5,796 5,132 12,465 1,872 1,951 2,139 937 22,648 982 4,058 2,988 FY 1988 906 1,931 13,533 16,934 979 2,374 3,145 5,750 FY 1987 4,867 16,795 4,744 950 4,636 5,948 4,974 23,169 61,025 Act DoD Physical Security Equipment - Exterior Air Base Operability Advanced Development Aircraft Avionics Equipment Development Aircraft Non-Nuclear Survivability (H) Engine Model Derivative Program (EMDP) Intelligence Advanced Development PAVE RUNNER Advanced Development Combat Identification Technology Low Cost Anti-Radiation Seeker Aircraft Equipment Development Item Nomenclature Millimeter Wave Seekers C3CM Advanced Systems Special Programs HAVE DUTIN CV-22A Program Line Element No Number 0603244F 0603260F 0603261F 0603307F 0603256F 0603320F 0603437F **0603609P** 0603714F 0603742F 0603749F 0604201F 0603801F 0604212F 0604218F

Page F-7

2,177 U 28,052 U

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4,427 76,616

4,224 30,499

102,171

28,078

-2,634

2,634 2,179

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653

9,189

Integrated Digital Avionics

0604219F

127 128 129

126

124 125 0604220F 0604222F 0604223F

Alternate Fighter Engine

130

Nuclear Weapons Support

EW Counter Response

Department of the Air Force FY 1989 R D T & E Program

Exhibit R-1

Appropriation: 3600 F Research Development Test & Eval AF

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			1	;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;			Thousands of	Dollars
L	Program Line Element					FY 88/89		ł
N <sub>O</sub>		Item Nomenclature	Act	FY 1987	FY 1988	FY 1989	ADJUSTMENT	FY 1989 C
131	1 0604231F	C-17 Program	•	615,716	1,115,550	981,977	-20,910	961.067 U
132	2 0604232F	PAVE RUNNER	4					
133	3 0604233F	Tanker, Transport, Bomber Training System	₹				4,500	4,500 U
134	4 0604236F	Infrared Search and Track System	4	24,303	14,000	4,876	<b>*</b> -	4,872 U
135	5 0604237F	Variable Stability In-Flight Simulator Test		5,816	6,225	14,380	-2,511	11,869 U
136	5 0604241F	Consolidated EW Program	4		179,043			Þ
137	7 0604242F	Advanced Tactical Aircraft (ATA)	4					
138	0604247F	Modular Automatic Test Equipment	4	18,159	14,942	16,302	-3,013	13,289 U
139	0604248F	Modular Standoff Weapons	4			39,255	-39,255	
140	0604249F	Night/Precision Attack	•	37,942	19,774	4,689	<b>G</b>	4,684 U
141	. 0604250F	Integrated EW/CNI Development	4		7,684	36,081	52,214	88,295 U
142	0604268F	Aircraft Engine Component Improvement Program	4	110,278	90,658	128,737	-34,227	94,510 U
143	0604270F	EW Development	4				127,178	127,178 U
144	0604313F	T-46A	•	531				
145	0604314F	Advanced Medium-Range, Air-to-Air Hissile (AMRAAH)	4	36,726	23,906			
146	0604315F	Advanced Short Range Air-to-Air Missile (ASRAAM)	4		966	9,576	-5,405	4,171 U
147	0604321F	Joint Tactical Fusion Program	4	24.636	13,802			
148	0604327F	Hardened Target Munitions	4		1,494	14,085	-7,806	6,279 U
149	0604362F	Ground-Launched Cruise Missile (GLCM)	4			926	-958	n

UNCLASSIFIED

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Date: February 1988

Exhibit R-1

Department of the Air Force FY 1989 R D T & E Program

Appropriation: 3600 F Research Development Test & Eval

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AMENDED e FY 1989 c 17,661 U 19,158 U 7,326 U 26,752 U 17,018 U N 160'9 1,635 U 16,914 U 6,044 U 5,144 U U 961,701 39,787 U > 13,156 U Thousands of Dollars FY 1989 ADJUSTMENT -18 -17 -16 1,184 -7 -602 -704 -203 13,474 -2,006 -8,915 11,650 -20,403 -8,047 -81,974 -55,994 -8,511 FY 88/89 PRES BUDGET FY 1989 17,678 7,333 19,176 13,278 17,034 8,103 2,237 15,730 6,748 203 5,148 8,915 28,137 8,047 81,974 55,994 127,599 21,667 4,650 22,520 11,953 1,639 12,568 7,635 11,288 FY 1988 14,543 13,800 6,704 194 34,864 196'6 196'6 32,738 FY 1987 4,712 21,653 19,582 16,324 6,874 23,328 14,702 12,947 9,212 19,043 8,848 27,268 16,464 11,967 57,714 23,729 40,200 14,261 Act ! DoD Physical Security Equipment - Exterior Computer Resources Management Technology Chemical/Biological Defense Equipment Common Support Equipment Development Wide-Area, Anti-Armor Munitions Aeromedical Systems Development Precision Location Strike System Airborne Self-Protection Jammer Armament/Ordnance Development Combat Identification Systems Other Operational Equipment Tactical C3 Countermeasures Surface Defense Suppression Tactical Protective Systems Item Nomenclature Reconnaissance Equipment Air Base Operability Life Support Systems Protective Systems Submunitions Program Line Element No Number 0604601F 0604607F 0604602F 0604604F 0604617F 0604703F 0604704F 0604706F 0604708F 0604710F 0604715F 0604724F 0604725F 0604733F 0604742F 0604737F 0604738F 0604739F 0604740F 150 151 152 153 154 155 157 158 159 160 191 168 156 162 163 164 165 166 167

UNCLASSIFIED

Department of the Air Force FY 1989 R D T & B Program

Exhibit R-1

Date: February 1988

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Line No	Program Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTHENT	S AMENDED 6 FY 1989 C
691	0604750F	Intelligence Equipment		12,162	5,905	4,880	ř.	4.875 U
170	0604754F	Joint Tactical Information Distribution System	<b>4</b>		21,914	64,772	-62	64,710 U
171	0604756F	Side Looking Airborne Radar	•	21,904		5,254	-1,604	3,650 U
172	0604770F	Joint Surveillance/Target Attack Radar System	•	297,248	346,559	238,296	-226	238,070 U
173	0604779F	Joint Interoperability of Tactical Command &	<b>4</b>	9,331	6,017	6,085	9-	n 620'9
174	0101133F	Control systems (dinimacts) SR-71 Squadrons	4					
175	0201131F	U.S. Readiness Command - Communications	`₹		3,999	1,276	-1,276	
921	0207129F	F-111 Squadrons	4	15,790	18,926	20,136	1,405	21,541 U
111	0207130F	F-15A/B/C/D Squadrons	•	153,347	105,588	69,340	19,716	89,056 U
178	0207133F	F-16 Squadrons	4	53,651	25,401	23,640	2,821	26,461 U
179	0207136F	F-4G WILD WEASEL Squadrons	4	25,812	15,739	17,001	4,286	21,287 U
80	0207137F	CONSTANT HELP	•					
18	0207139F	Competitive Fighter Procurement	4			2,846	-2,846	n
82	0207162F	Tactical AGM Missiles	4	1,457	2,339			n
83	0207168F	P-111 Self Protection Systems	4		19,125	52,869	-52,869	Þ
84	0207169F	SEEK CLOCK	÷					
85	0207215F	TR-1 Squadron	. 4	20,453	69,728	102,307	66-	102,208 U
98	0207217F	Pollow-On Tactical Reconnaissance System	4	17,672	42,833	54,084	2,478	56,562 U
87	0207247F	AF TENCAP	4	2,859	312	324	7	323 U

Page F-10'

UNCLASSIFIED

Department of the Air Force FY 1989 R D T & E Program

Appropriation: 3600 F Research Development Test & Eval AF

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Date: February 1988

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Line No	Floytan e Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	S AMENDED e FY 1989 C
188	0207316F	TACIT RAINBOW	•		79.150	40.360		
189	0207411F	Overseas Air Weapon Control System	4	6.305	6 6 30		150.6-	39,323 U
190	0207412F	Tactical Air Control Systems	4	15,546	37 920	67079	9 ;	n 690'9
161	0207417F	Airborne Warning and Control System (AWACS)	. 4	00.00	064 690	14,370	-1,014	13,356 U
192	0207423F	Advanced Communications Systems	. 4	20.00	000000	86,419	86,355	174,774 U
193	0207424F	Copper Coast	. 4		500167	690'11	283	10,806 и
194	0207431F	Tactical Air Intelligence System Activities		1,321	1.943			,
195	0207433F	Tactical Improvement Program	4					
196	0207435F	Tactical Reconnalssance Imagery and Exploitation	4	803	1,138	1.534	Ċ	
197	0207579F	Advanced Systems Improvements	4				7	1,532 U
198	0207582F	Have Trump	4					
199	0207584F	SEEK AXLE	4					
200	0207585F	· SEEK SPINNER	. 4					
201	0207591F	ОНЕСА	4					
202	0207595F	Base Communications - Tactical Air Forces	. •	3,586				;
203	0208010F	Joint Tactical Communications Program (TRI-TAC)	4	6.975	0 063	6		<b>b</b>
204	0208042F		4		18670	6,102	-3,804	4,298 U
205	0303605F	Satellite Communications Terminals	' <b>*</b>	4,461	13,946	22,760	336 8-	
206	0305165F	NAVSTAR Global Positioning System (Space and Control Segments)	4	3,100				D #66'/†

Page F-11

Department of the Air Force FY 1989 R D T & E Program

Exhibit R-1

Date: February 1988

Appropriation: 3600 F Research Development Test & Eval AF

			1				Thousands of Dollars	f Dollars
Line	Program 16 Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED 6
207	0305887F	Blectronic Combat Intelligence Support		1,691		1,682	-1.682	
208	0401129F	THEME CASTLE	4					•
209	0401316F	Senior Citizen	4					
210	0401840F	MAC Command and Control System	₹	11,594	7,969	11,015	-2,000	9,015 U
211	0404011F	Special Operations Forces	~	63,277		113,461	-113,461	
212	0502610F	A-7 Squadrons (ANG)	4	37,318	59,965	83,367	61-	83,288 U
213	1110011F	Force Enhancements-Active	₹		116,837		155,263	155,263 U
	Tactical	Tactical Programs		3,631,177	4,031,360	4,210,694	55,158	4,265,852
214	0603431F	Space Communications	ស	13,690				
215	0604238F	Constant Pisces	ហ					
216	0301305F	Intelligence Production Activities	ĸ					
217	0301310F	Foreign Technology Division	ĸ					
218	0301314F	Infrared/Electro-Optical/Dir. Energy Weapons	ĸ					
219	0301315F	Fioressing and Exploitation Hissile and Space Technical Collection	ហ					
220	0301317F	SENIOR YEAR Operations	ĸ					
221	0301324F	FOREST GREEN	ស		٠	,		
222	0301357F	NUDET Detection System	ĸ					
223	0302053F	NMCS-Wide Support - Communications	ທ	196				D
224	0303110F	Defense Satellite Communications System	ហ	16,833	43,325	53,596	-15,535	38,061 U

Exhibit R-1

Department of the Air Force FY 1989 R D T & E Program

Apr	Appropriations	3600 F Research Development Test & Eval AF					Date: Fe	Date: February 1988
							Thousands of Dollars	f Dollars
Line No	Program ie Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED e FY 1989 C
225	0303126F	Long-Haul Communications (DCS)	ĸ	7,053	5,132	4,756	'n	4,751 U
226	0303128F	Inter-Service/Agency Automated Message Processing Exchange	ĸ	51,883	1,289	13,240	-13,240	Ð
		Electromagnetic Compatibility Analysis Center (ECAC)	ທ	7,485	8,083	8,618	-191	8,427 U
228	0303401F	Communications Security (COMSEC)	s	I				
229	0304111F	Special Activities	G					
230	0305114F	Traffic Control, Approach, and Landing System	တ	21,407	25,891	25,139	-25	25,114 #
231	0305159F	(Indiana) Defense Reconnaissance Support Activities	ĸ					
232	0305164F	NAVSTAR Global Positioning System (User Equipment)	່ ທ	28,172	40,239	61,697	-11,547	50,150 U
233	0305165F	NAVSTAR Global Positioning System (Space and	ហ	32,817	26,204	61,257	-8,025	
234	0804733F	General Intelligence Skill Training	ĸ	4,424				D
	Intellig	Intelligence and Communications		2,293,434	2,132,074	2,024,634	863	2.025.497
235	0603402F	Space Test Program	9	49,093	53,887	130,664	-57,868	72.796 11
236	0603438F	Satellite Systems Survivability	9	1,886	3,264	3,787	E-	
237	0603790F	NATO Research and Development	9	36,488				
238	0604211F	Advanced Aerial Target Development	•	10,671	9,848	3,714	ę,	3,711 U
239	0604227F	Flight Simulator Development	9	92,783	56,778	64,467	8,333	72,800 U
240	0604609F	REM Maturation/Technology Insertion	œ	13,821	14,942	26,279	-5,519	20,760 U
241	0604707F	Weather Systems - Eng Dev	9	12,170	12,488	11,769	-3,008	8,761 U
242	0604735F	Range Improvement	. 9	58,965	55,782	46,603	-6,538	40,065 U

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Exhibit R-1 Department of the Air Force FY 1989 R D T & E Program Appropriation: 3600 F Research Development Test & Eval AF

Date: February 1988

			į				rionisands of Dollars	Dollars
Line	Program le Element Number	Item Nomenclature	Net 	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	S AMENDED 6 FY 1989 C
243	0604747F	Electromagnetic Radiation Test Facilities	ů	5,399	5,919	6,238	-1,005	5,233 U
244	0604755F	Improved Capability for Development Test & Rualuation	.9	76,727	52,296	71,257	-20,549	50,708 U
245	0605101F	Project Air Force	9	20,299	22,020	20,011	1,981	21,992 U
246	0605304F	Acquisition & Command Support (ACS) -	9	12,727				5
247	0605306F	Ranch Hand II Epidemiology Study	vo	7,147	5,754	1,757	-10	1,747 U
248	0605502F	Small Business Innovative Research	9	73,404				n
249	0605708F	Navigation/Radar/Sled Track Test Support	9	25,293	24,122	24,959	-4,414	20,545 U
250	0605806F	Acquisition and Command Support	9	294,296				ם
251	0605807F	Test and Evaluation Support	v	302,302	295,106	316,669	-18,582	298,087 U
252	060580BF	Advanced Systems Engineering/Planning	vo	12,637	13,093	27,445	-13,014	14,431 U
253	36085090	DYCOMS .	<b>'o</b> '		7,471	9,224	-33	0,191 U
254	0605863F	RDTsE Aircraft Support	v	62,000	50,000	60,862	-3,036	57,826 U
255	0605872F	Productivity Investments	9	2,871		e.	,	<b>5</b>
256	0605874F	Product Performance Agreement Center	9	909				Þ
257	0605894F	Real Property Maintenance - RDrgg	9	124,019	74,465	80,843	1,038	81,881 U
258	0605896F	Base Operations - RDTgE	9	99,422	56,809	56,146	5,397	61,543 U
259	0305110F	Satellite Control Facility	9	75,913	95,458	126,898	-26,095	100,803 U
260	0305119F	Space Boosters	•	290,552	454,865	15,847	472,938	488,785 U
261	0305130F	Consolidated Space Operations Center	v	68,559	39,864	39,126	4,959	44,085 U

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## Department of the Air Force FY 1989 R D T & E Program

Appropriation: 3600 F Research Development Test & Eval AF

Date: February 1988

Exhibit R-1

AMENDED e FY 1989 C 53,364 U 4,476 U 58,715 U 973 U 97,911 U 16,398 U 3,737 U 1,715,108 14,932,100 Thousands of Dollars FY 1989 ADJUSTMENT 2,938 -15,175 -97,355 7 -4,015 221,938 581 -2,796,471 FY 88/89 PRES BUDGET FY 1989 68,539 156,070 4,480 974 94,973 20,413 3,156 1,493,170 17,728,571 4,329 FY 1988 42,675 51,205 84,670 14,706 3,107 15,165,388 1,604,923 4,628 FY 1987 59,556 90,918 60,458 14,263 2,721 2,062,594 15,050,523 Act Defense Meteorological Satellite Program (DMSP) Productivity, Reliability, Availability, Maintain. Prog Ofc (PRAMPO) International Activities Inventory Control Point Operations Total Research Development Test & Eval AP Item Nomenclature Depot Maintenance (Non-IF) Space Shuttle Operations Industrial Preparedness Defensewide Mission Support Program Line Element No Number 262 0305160F 0305171F 0701112F 0702207F 0708011F 0708026F 1001004F 268 266 263 264 265 267

Page F-15

## Defense Agencies FY 1989 R D T & E Program

Exhibit R-1

	Summary			Date: Fe	February 1988
				Thousands	of Dollars
	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 Adjustment	AMENDED FY 1989
Summary Recap of Research Categories				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Research Exploratory Development	99,903	192,050	125,367	61,195	186,562
Advanced Development Engineering Development Management and Support	3,841,372 196,683 131,224	4,422,977	6,886,078 73,385	-1,241,630 -1,241,630 5,971	5,644,448 79,356
Research and Development (FYDP Program 6) Operational Systems Development	4,981,313	5,769,160	8,163,297 1,957,367	-1,322,656	140,610 
Total Research Development Test & Eval Def Ag	6,768,110	7,661,825	10,120,664	-1,452,864	8,667,800
Summary Recap of Budget Activities					
Technology Base Advanced Technology Develonment		,070,51	1,022,364	-52,143	970,221
Strategic Programs Tactical Programs	3,767,570	4,091,534	6,704,523 104,228	-1,559,836 200,374	5,144,687 304,602
Intelligence and Communications Defensewide Mission Support	255,597 1,687,707 174,966	222,833 1,728,513 415,189	144,012 1,765,184 380.353	37,240 -124,975 46,476	181,252
Total Research Development Test & Eval Def Ag	6,768,110	7,661,825	10,120,664	98	678,627
Summary Recap of FYDP Programs				٠	•
General Purpose Forces Intelligence and Communications Research and Development (FYDP Program 6) Central Supply and Maintenance Support of Other Nations Special Operations Forces	60,705 1,719,134 4,981,313 5,359 1,599		74,708 1,792,743 8,163,297 89,424	တ် ထ လ လ	68,510 1,704,552 6,840,641 34,389
Total Research Development Test & Eval Def Ag	6,768,110	7,661,825	10,120,664	19,267	19,267

Summary

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Date: February 1988

•				Thousands of Dollars	f Dollars
	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED FY 1989
Summary Recap of Defense Agencies					
Defense Mapping Agency Strategic Defense Initiative Organ	253,997	304,103	314,177	-11,056	303,121
Office of Secretary/Defense Defense Advanced Research Projects Agcy National Security Agency	547,414	989,621 879,542	9,484,029 507,797 935,042	-1,/36,118 632,986 -149,196	4,545,911 1,140,783 785,846
Defense Nuclear Agency Defense Support Project Office Defense Communications Agency Defense Intelligence Agency	306,019 213,225 104,266	302,888 228,487 175,427	393,446 110,162 135,990	-46,598 26,605 48,119	346,848 136,767 184,109
Joint Tactical C3 Agency Defense Logistics Agency Uniformed Services University (USUHS)	60,058 31,983 1,897	62,020	72,598 51,641 2,832	-72,598 -7,417 -762	44,224
Total Research Development Test & Eval Def Ag	6,768,110	7,661,825	10,120,664	-1,452,864	8,667,800

Page D-II

Defense Agencies FY 1989 R D T & E Program

Date: February 1988 Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Def Ag

							Thousands	of Dollars
Line	Frogram ne Element Number	Item Nomenclature	Act	FY 1967	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 Adjustment	S AMENDED e FY 1989 C
-	31011090 1	Defense Research Sciences	7	88,976	80,000	97,535	-8.043	80,402
~	W1011090	In-House Laboratory Independent Research	ਜ	1,897	2,442	2,832	-762	
m	0601103D	University Research Initiatives	7		85,000	•	900	
•	0601103B	University Research Initiatives	-	9,030		25,000	-25,000	n 000'c6
S	0601104D	Defense University Research Instrumentation	7		24,608			
9	0602101E	Technical Studies			1,700	1,800		000
7	0602301E	Strategic Technology		206,987	311,500	256,400	-28.760	227.640 11
∞	0602702E	Tactical Technolgy	-	96,307	116,245	142,551	-25.680	116 971
O)	0602707E	Particle Beam Technology	7	14,500	14,000	14,000		
10	060270BE	Integrated Command and Control Technology	7	37,873	32,000	38.400	-5.040	23 266 5
11	0602712E	Materials and Electronics Technology	-	30,594	000,65	26.700	25.75	33,360 0
12	0602714E	Nuclear Monitoring	-	19,021	24.330	22,600		20,540 0
13	0602715н	Defense Nuclear Agency	4	306,019	302.888	303 446	303 31	22,600 U
14	0602716B	Mapping, Charting and Geodesy	-	830	008	1 100	966 101-	346,848 U
15	0602718D	Environmental Hazard Research	H		16,500		00141	<b>5</b>
	Technology Base	9Y Base		812,034	1.070.513	1 000 364		
16	0603220C	SDI-Surveillance, Acquisition, Tracking and Kill	8	922,986	955.523	1.850 530	134 005	
. 17	0603221C	Assessment SDI-Directed Energy Weapons	8	853,131	832,326	1.245.020	134,905	
18	0603222C	SDI-Kinetic Energy Weapons	~	722,493	791,549	1,199,650	0761617-	
					•		0001007	0 867'086

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Page D-1

Defense Agencies

Exhibit R-1	Date: February 1988
PY 1989 R D T & E Program	Appropriation: 0400 D Research Development Test & Eval Def Ag

			į				Thousands of Dollars	f Dollars
Line	Program le Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	PY 1989 ADJUSTMENT	S AMENDED 6 FY 1989 C
19	06032230	SDI-Systems Concepts and Battle Management/C3	~	385,790	503.156	787.510	-147 616	
20	0603224C	SDI-Survivability, Lethality, and Key Support	~	375,300	448,670	1,162,189	-371.775	700.414 H
21	0603225D	rechnology Joint DoD-DoE Munitions Technology Development	~	7,176	14,768	8,614	868-	
22	0603226E	Experimental Evaluation of Major Innovative	N	151,774	215,133	272,246	-47,200	
23	0603227E	Relocatable Target Detection Technology Program	8		2,000	17,400	-2,000	
24	0603269E	National Aero Space Plane Technology Program	~	100,000				
25	0603702D	Special Operations, Special Technology Office	8	4,015		9,836	-8,836	
56	0603703D	Counter-Insurgency and Special Technology	8	12,201	,	10,375	-10,375	· =
27	0603706D	Microwave/Millimeter Wave Monolithic Integrated Circuits (MIMIC)	~	10,274	45,466	86,038	-18,974	67,064 U
28	0603736D	Computer Aided Logistics Support	п	13,639	9,845	12,932	-1,350	
29	0603737D	Balanced Technology Initiative	7	182,314	200,000		238,000	
30	0603738D	Cooperative DoD/VA Medical Research	. ~		15,000			
31	0603740D	RACER	8		2,000		,	
32	0603756D	Consolidated DoD Software Initiatives	8	24,389	24,567	30,726	6,394	37.120 11
33	0305108K	Command and Control Research	7	2,088	2,541	2,657	786-	0 021//6
34	11100111	Force Enhancements-Active	7		10,827		10.405	
35	1140011D	Advanced Special Operations Research, Development and Acquisition	74		12,163		8,862	8,862 U
	Advanced	Technology Development		3,767,570	4,091,534	6,704,523	-1.559.836	5 144 697
36	0603734K	Island Sun	e	27,706	49,457	63,898	088'9-	57,018 U

Page D-2

## Defense Agencies FY 1989 R D T & E Program

Exhibit R-1

			•	a s rogram			EXUID	Exhibit K-I .
Appı	ropriation	Appropriation: 0400 D Research Development Test & Eval Def Ag					Date: Fel	Date: February 1988
							Thousands of Dollars	f Dollars
Line	Program Blement Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	S AMENDED 6 FY 1989 C
37	0603741D	Air Defense Initiative	m		49,224		213,574	213,574 U
38	0302016K	National Hilltary Command System-Wide Support	M	10,200	10,616	12,405	-6,714	9,691 U
39	0302019K	WWWCCS Systems Engineer	m	22,037	15,573	17,193	1,341	18,534 U
40	0303131K	Minimum Essential Emergency Communications Network (MEECN)	m	10,293	8,373	10,732	-947	9,785 U
	Strategi	Strategic Programs		70,236	133,243	104,228	200,374	304,602
41	0604702D	Joint Standoff Weapons Program	4	•	25,000		15,900	15,900 U
42	0604771D	Joint Tactical Information Distribution System	₹	194,892	78,760	69,304	-7,228	62,076 U
43	0201135K	CINC C2 Initiatives	4	647	2,067	2,110	-227	1,883 U
44	0208045K	C3 Interoperability (Joint Tactical C3 Agency)	•	,	61,715		60,264	60,264 U
45	02080450	C3 Interoperability (Joint Tactical C3 Agency) (FY 87 and prior)	4	55,216		65,419	-65,419	n
46	0208298K	Management Headquarters (Joint Tactical C3 Agency)	•		2,000		6,363	6,363 U
47	02082980	Management Headquarters (Joint Tactical C3 Agency) (FY 87 and prior)	4	4,842		7,179	-7,179	. <b>ɔ</b>
<b>8</b>	0305141D	Joint Remotely Piloted Vehicles Program			50,291		34,766	34,766 U
	Tactical	Tactical Programs		255,597	222,833	144,012	37,240	181,252
40	0603701B	Mapping, Charting, Geodesy Investigations, and Prototype Development	ĸ	11,400	12,168	11,347	-5,923	5,424 U
20	0604701B	Mapping, Charting, and Geodesy Engineering Development and Test	S)	1,791	3,782	4,081	-2,701	1,380 U
21	0604703D	LANDSAT	S		9,843			n
52	0301011G	Cryptologic Activities	r.					

Appropriation: 0400 D Research Development Test & Eval Def Ag

 Defense Agencies FY 1989 R D T & E Program	
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Exhibit R-1 Date: February 1988

							Thousands of	f Dollars
Line	Ficylen ne Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED e
53	0301301L	General Defense Intelligence Program	ĸ					
54	I 0303126K	Long-Haul Communications (DCS)	ĸ	26.535	16.511	c c	•	
55	0303127K	Support of the National Communications System	ın	4.760	725.6	66677	-4,321	18,272 U
26	0303401G	Communications Security (COMSEC)	, KO			4,402	-474	3,928 U
57	0305139B	DMA Exploitation Modernization Program	ĸ	235,829	285.000	203,317		
28	03051541	Airborne Reconnaissance Support Program	S	•	87,100			293,317 U
29	0305159B	Defense Reconnaissance Support Activities	ស	4,147	2,853	4.333	106 106	· 96,561 U·
9	0305159G	Defense Reconnaissance Support Activities	ĸ			***	766,11	3,000 U
19	03051591	Defense Reconnaissance Support Activities	ĸ	213,225	141,387	110,169	230 (62	
62	0305167G	Computer Security	ĸ				966/1/	38,206 U
63	0305884L	Intelligence Planning & Review Activities	S					
99	0305885G	Tactical Cryptologic Activities	vs					
	Intellige	Intelligence and Communications		1,687,707	1.728.513	100 370		
65	0603739D	Semiconductor Manufacturing Technology	v		98.450	#81/69/1T	-124,975	
99	0603790D	NATO Research and Development	ve	187.38	001106	000'06	-5,215	44,785 U
67	0605104D	Technical Support to USD(A)	, ,		C/0'/PT	28,967	141,631	200,598 U
89	0605106D	General Support for Page	<b>,</b>	750,451	17,295	29,687	-11,220	18,467 U
69	06051070		c	2,218	2,179	4,530	-2,177	2,353 U
3		ceneral support tor Policy	•	5,109	5,470	8,654	-2,907	5,747 U ·
?	08015090	General Support for Net Assessment	v	3,508	3,515	5,375	-1,563	3,812 U

UNCLASSIFIED

Page D-4

Defense Agencies 189 R D T & E Program

Exhibit R-1

FY 1989

1,631 U 3,968 U 3,600 U 2,568 U 10,363 U 2,865 U 4,400 U 23,824 U 24,790 U 15,497 U 23,589 U 10,800 U 5,200 U 441 U AMENDED FY 1989 17,531 Date: February 1988 426,829 8,667,800 Thousands of Dollars FY 1989 ADJUSTMENT -400 -462 79 -299-3,505 -557 -5,620 -1,797 -1,000 -2,540 87 -55,035 -51 46,476 -1,452,864 FY 88/89 PRES BUDGET 2,604 4,430 4,000 FY 1989 17,452 2,867 3,422 4,400 13,868 6,997 1,000 29,444 27,330 15,410 492 78,624 10,800 380,353 10,120,664 3,175 16,259 3,600 2,354 9,845 FY 1988 19,792 1,531 2,558 29,019 4,883 2,000 19,776 1,969 15,034 8,326 484 7,661,825 415,189 1,608 3,194 15,373 3,600 2,390 9,196 2,483 2,133 FY 1987 19,912 7,851 4,579 20,025 5,359 12,993 1,599 174,966 6,768,110 Act ø Management Headquarters (Research and Development) Technical Support to USD(A) -- Critical Technology Appropriation: 0400 D Research Development Test & Eval Def Ag Poreign Material Acquisition and Exploitation Management Headquarters (Strategic Defense Initiative) Rand National Defense Research Institute Defense Technical Information Center Small Business Innovative Research Total Research Development Test & Eval Def Ag Technology Security Functions Critical Technology Analysis Information Analysis Centers Item Nomenclature Infrared Focal Plane Array General Support for FMsP Productivity Investments General Support for Pal General Support to C31 Industrial Preparedness Defensewide Mission Support BLACK LIGHT **06015090** 06051100 0605114E 0605112D **0605116D** 0605117D 0605119D 0605502E 06057118 06058018 06058028 0605872B 0605898E 0702807D Program Line Blement **0605898**C 07080118 10010150 Number 7 72 73 80 8 83 83 87

UNCLASSIFIED

Page D-5

Defense Agencies FY 1989 R D T & E Program

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	Summary			Date: Fel	Date: February 1988
				Thousands of Dollars	[ Dollars
	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED FY 1989
Summary Recap of Research Categories					
Engineering Development Management and Support	119,906	31,600	40,900	-8,900 -10,328	32,000
Research and Development (FYDP Program 6)	119,906	182,116	186,128	-19,228	166,900
Total Director of Test & Eval Defense	119,906	182,116	186,128	-19,228	166,900
Summary Recap of Budget Activities					
Defensewide Mission Support	906'611	182,116	186,128	-19,228	166.900
Total Director of Test & Eval Defense	119,906	182,116	186,128	-19,228	166,900
Summary Recap of FYDP Programs					
Research and Development (FYDP Program 6)	119,906	182,116	186,128	-19,228	166,900
Total Director of Test & Eval Defense	119,906	182,116	186,128	-19,228	166,900

Page D-6

UNCLASSIFIED

Defense Agencies FY 1989 R D T & E Program

Appropriation: 0450 D Director of Test & Eval Defense

Exhibit R-1

Appr	opriations	Appropriation: 0450 D Director of Test & Eval Defense					Date: Fek	Date: February 1988
				,			Thousands of Dollars	Dollars
Line	Program Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	PY 1989 ADJUSTMENT	S AMENDED 6 FY 1989 C
-	0604940D	Test Instrumentation Development	9		30,100	35,900	-5,900	30,000 U
~	0604941D	Space System Test Capabilities	v		1,500	5,000	-3,000	2,000 U
m	06051110	Foreign Weapons Evaluation	9	18,010	29,811	14,864	-2,000	12,864 U
•	0605130D	NATO Cooperative Development Testing	9	39,000	43,000	49,313	005'9-	42,813 U
2	0605131D	Live Fire Testing	•		6,700	5,000	•	s,000 u
9	0605132D	Joint Technical Coordinating Group for Aircraft Shruiushility	9		7,086	980'8	-1,000	7,086 U
1	0605804D	Development Test and Evaluation	9	62,896	63,919	67,965	-828	67,137 U
•	Defensevi	Defensewide Mission Support		119,906	182,116	186,128	-19,228	166,900
fotal		Director of Test & Eval Defense		119,906	182,116	186,128	-19,228	166,900
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Defense Agencies FY 1989 R D T & E Program

Exhibit R-1

	Summary			Date: Fek	Date: February 1988
				Thousands of Dollars	Dollars
	FY 1967	FY 1988	FY 88/69 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED FY 1989
Summary Recap of Research Categories					
Engineering Development Management and Support	11,300	59,000 11,221	138,000	-16,834	121,166, 22,234
Research and Development (FYDP Program 6)	11,300	70,221	149,657	-6,257	143,400
Total Director of Operational Test & Evaluation	11,300	70,221	149,657	-6,257	143,400
Summary Recap of Budget Activities	•				
Defensewide Mission Support	11,300	70,221	149,657	-6,257	143,400
Total Director of Operational Test & Evaluation	11,300	70,221	149,657	-6,257	143,400
Summary Recap of FYDP Programs					
Research and Development (FYDP Program 6)	11,300	70,221	149,657	-6,257	143,400
Total Director of Operational Test & Evaluation	11,300	70,221	149,657		143,400

Page D-8

UNCLASSIFIED

### Defense Agencies FY 1989 R D T & B Program

Appropriation: 0460 D Director of Operational Test & Evaluation

Exhibit R-1

Date: February 1988

			ì			Thousands of Dollars	Thousands of Dollars	f Dollars
Ling	Frogram Line Element No Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 Adjusthent	AMENDED 6 FY 1989 C
-	0604340D	Offer Capability Improvement	vo		29,000	138,000	-16,834	121.166 #
~	0605118D	Operational Test and Evaluation	9	11,300	11,221	11.657	522	
m	0605133D	SDS Orem Organization	9		•		10,000	10,000 U
	Defensew	Defensewide Mission Support		11,300	70,221	149,657		143,400
Total	1 Director	Director of Operational Test & Evaluation		11,300	70,221	149,657		143,400

Defense Mapping Agency FY 1989 R D T & E Program

Date: February 1988 Exhibit R-1 Appropriation: 0400 D Research Development Test & Eval Def Ag

			į				Thousands of Dollars	f Dollars
Line	Program Line Element No Number	Item Nomenclature	Act	FY 1987	PY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	S AMENDED e FY 1989 C
14	14 0602716B	Mapping, Charting and Geodesy		830	300	1,100	-1,100	Þ
	Technology Base	Jy Base		830	300	1,100	-1,100	:
49	0603701B	Mapping, Charting, Geodesy Investigations, and Prototype Development	S	11,400	12,168	11,347	-5,923	5,424 U
20	0604701B	Napping, Charting, and Geodesy Engineering Development and Test	S	1,791	3,782	4,081	-2,701	1,380 U
57	0305139B	DMA Exploitation Modernization Program	so.	235,829	285,000	293,317		293,317 U
29	0305159B	Defense Reconnaissance Support Activities	ĸ	4,147	2,853	4,332	-1,332	3,000 u
	Intellige	Intelligence and Communications		253,167	303,803	313,077	956'6-	303,121
Total		Defense Mapping Agency		253,997	304,103	314,177	-11,056	303,121

Page D-10

## Strategic Defense Initiative Organ FY 1989 R D T & E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Def Ag

1,124,625 U 936,294 U 24,790 U 1,029,894 U 639,894 U 790,414 U Date: February 1988 AMENDED FY 1989 4,521,121 24,790 4,545,911 Thousands of Dollars FY 1989 ADJUSTMENT -734,905 -215,926 -263,356 -147,616 -371,775 -1,733,578 -2,540 -2,540 -1,736,118 FY 88/89 PRES BUDGET FY 1989 1,859,530 1,245,820 1,199,650 787,510 1,162,189 6,254,699 27,330 27,330 6,282,029 FY 1988 955,523 832,326 791,549 503,156 448,670 3,531,224 19,776 3,551,000 19,776 3,279,725 FY 1987 922,986 853,131 722,493 385,790 375,300 3,259,700 20,025 20,025 Act SDI-Surveillance, Acquisition, Tracking and Kill SDI-Systems Concepts and Battle Management/C3 SDI-Survivability, Lethality, and Key Support Technology Management Headquarters (Strategic Defense Initiative) SDI-Directed Energy Weapons SDI-Kinetic Energy Weapons Item Nomenclature Total Strategic Defense Initiative Organ Advanced Technology Development Defensewide Mission Support Program Line Element No Number 0603220C 0603221C 0603223C 0603224C 28685090 0603222C . 17 16 18 13 20

83

Page D-11

Exhibit R-1

Office of Secretary/Defense PY 1989 R D T & E Program

-= 95,000 U 7,716 U 67,064 U 11,582 U 238,000 U 37,120 U 10,405 U 8,862 U 213,574 U AMENDED FY 1989 95,000 380,749 213,574 Date: February 1988 Thousands of Dollars FY 1989 Adjustment 95,000 95,000 -898 6,394 8,862 238,000 10,405 -10,375-18,974 -1,350 223,228 213,574 -8,836 213,574 FY 88/89 PRES BUDGET FY 1989 8,614 9,836 10,375 86,038 12,932 157,521 30,726 16,500 9,845 5,000 12,163 FY 1968 85,000 24,608 126,108 14,768 45,466 200,000 15,000 24,567 337,636 10,827 49,224 49,224 4,015 13,639 7,176 10,274 FY 1987 12,201 182,314 24,389 254,008 Act Advanced Special Operations Research, Development and Acquisition Microwave/Millimeter Wave Monolithic Integrated Circuits (MIMIC) Computer Aided Logistics Support Joint DoD-DoE Munitions Technology Development Appropriation: 0400 D Research Development Test & Eval Def Ag Special Operations, Special Technology Office Defense University Research Instrumentation Counter-Insurgency and Special Technology Consolidated DoD Software Initiatives Cooperative DoD/VA Medical Research University Research Initiatives Balanced Technology Initiative Program Environmental Hazard Research Item Nomenclature Force Enhancements-Active Air Defense Initiative Advanced Technology Development Strategic Programs Technology Base 0601103D 0602718D 0603703D 0601104D 0603702D 0603706D 0603736D 0603737D Program Element Number 0603225D 0603756D 11100111 0603741D 0603738D 0603740D 1140011D Line m 15 53 7 25 26 27 28 30 31 32 35 37

Page D-12

Office of Secretary/Defense FY 1989 R D T & E Program

Exhibit R-1

Date: February 1988 Appropriation: 0400 D Research Development Test & Eval Def Ag

			į				Thousands of	of Dollars
Line No	Program e Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 86/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED 6 FY 1989 C
#	0604702D	Joint Standoff Weapons Program	4		25,000		15,900	15,900 U
42	0604771D	Joint Tactical Information Distribution System		194,892	78,760	69,304	-7,228	62,076 U
<b>4</b>	0305141D	Joint Remotely Piloted Vehicles Program	₹.		50,291		34,766	34,766 U
	Tactical	Tactical Programs		194,892	154,051	69,304	43,438	112,742
51	0604703D	LANDSAT	ĸ		9,843			Ð
	Intellig	Intelligence and Communications			9,843	 		.
9	0603739D	Semiconductor Manufacturing Technology	•		98,450	50,000	-5,215	44,785 U
99	0603790D	NATO Research and Development	ø	36,784	147,675	58,967	141,631	200,598 U
67	0605104D	Technical Support to USD(A)	9	15,052	17,295	29,687	-11,220	18,467 U
89	Q9015090	General Support for PAGE	9	2,218	2,179	4,530	-2,177	2,353 U
69	0605107D	General Support for Policy	9	5,109	5,470	8,654	-2,907	5,747 U
70	0605108D	General Support for Net Assessment	9	3,508	3,515	5,375	-1,563	3,812 U
11	06021090	General Support for FMGP	9	1,608	1,531	2,604	-973	1,631 U
72	00115090	Technical Support to USD(A)Critical Technology	9	3,194	3,175	4,430	-462	3,968 U
73	0605112D	Rand National Defense Research Institute	9	15,373	16,259	17,452	. 79	17,531 U
75	0605116D	General Support to C3I	•	2,390	2,354	2,867	-299	2,568 U
94.	0605117D	Foreign Material Acquisition and Exploitation	9	9,196	9,845	13,868	-3,505	10,363 U
77	0605119D	General Support for Pel.	9	2,483	2,558	3,422	-557	2,865 U

Page D-13

Office of Secretary/Defense FY 1989 R D T & E Program

Date: February 1988 Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Def Ag

		:	<b>i</b>			Thousands of Dollars	Thousands of Dollars	f Dollars
Line No 1	Frogram B Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	S AMENDED 6 FY 1989 C
88	85 0702807D	Infrared Focal Plane Array	•		1,969	78.624	360 33	
87	87 1001015D	Technology Security Functions	vo	1,599	484	492	-53,033	441 U
	Defensew	Defensewide Mission Support		98,514	312,759	280,972	57,746	338,718
Tota	l Office (	Total Office of Secretary/Defense		547,414	989,621	507,797	632,986	1,140,783

Page D-14

# Defense Advanced Research Projects Agcy FY 1989 R D T & B Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Def Ag

							Thomas of the property of the	meands of Dollars
	Program		. !				Thousands	r Dollars
Line No		Item Nomenclature	Act	FY 1987	FY 1988	PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	AMENDED 6 FY 1989 C
-	06011018	Defense Research Sciences	-	88,976	80,000	97,535	-8,043	89,492 U
•	0601103E	University Research Initiatives		9,030		25,000	-25,000	ם
9	0602101E	Technical Studies	-		1,700	1,600		1,800 U
7	0602301E	Strategic Technology	-	206,987	311,500	256,400	-28,760	227,640 U
8	0602702B	Tactical Technolgy	. <b></b>	96,307	116,245	142,551	-25,680	116,871 U
0	0602707E	Partiçle Beam Technology	-	14,500	14,000	14,000		14,000 U
10	0602708E	Integrated Command and Control Technology	-	37,873	32,000	38,400	-5,040	33,360 U
=	0602712E	Materials and Electronics Technology	-	30,594	29,000	26,700	-6,160	20,540 U
12	0602714B	Nuclear Monitoring	-	19,021	24,330	22,600		22,600 U
	Technology Base	gy Base		503,288	638,775	624,986	689'86-	526,303
22	0603226E	Experimental Evaluation of Major Innovative	7	151,774	215,133	272,246	-47,200	225,046 U
23	0603227E	Relocatable Target Detection Technology Program	8		2,000	17,400	-2,000	15,400 U
24	0603269B	National Aero Space Plane Technology Program	<b>∾</b>	100,000				n
	Advanced	Advanced Technology Development		251,774	220,133	289,646	-49,200	240,446
74	0605114E	BLACK LIGHT	9	3,600	3,600	4,000	-400	3,600 U
18	0605502E	Small Business Innovative Research	•	7,851				
82	0605872E	Productivity Investments			2,000	1,000	-1,000	
84	<b>3868</b> 5090	Management Headquarters (Research and Development)	9	12,993	15,034	15,410	87	15,497 U
	Defensew	Defensewide Mission Support		24,444	20,634	20,410	-1,313	19,097
Total		Defense Advanced Research Projects Agcy		779,506	879,542	935,042	-149,196	785,846
		n	UNCLASSIFIED	FIED			Page D-15	

Appropriation: 0400 D Research Development Test & Eval Def Ag

National Security Agency FY 1989 R D T & E Program

Date: February 1988

Exhibit R-1

AMENDED e Thousands of Dollars FY 1989 ADJUSTMENT PRES BUDGET FY 1989 FY 1988 FY 1987 Act Defense Reconnaissance Support Activities Communications Security (COMSEC) Tactical Cryptologic Activities Item Nomenclature Cryptologic Activities Computer Security 0301011G Program Line Element No Number 0303401G 0305159G 0305167G 64 0305885G

25

26

09 62 Intelligence and Communications

Total National Security Agency

Page D-16

Date: February 1988 Exhibit R-1

Defense Nuclear Agency FY 1989 R D T & E Program

Appropriation: 0400 D Research Development Test & Eval Def Ag

		!		; ; ; ; ; ;	Thousands of Dollars	Thousands of Dollars	f Dollars
Program Line Element No Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	S AMENDED e FY 1989 C
13 0602715н	Defense Nuclear Agency	1	306,019	302,888	393,446	-46,598	346,848 U
Technology Base	9y Base		306,019	302,888	393,446	-46,598	346,848
oțal Defense	Total Defense Nuclear Agency		306,019	302,888	393,446	-46,598	346,848

## Defense Support Project Office FY 1989 R D T & E Program

Appropriation: 0400 D Research Development Test & Eval Def Ag

Date: February 1988 Exhibit R-1

			į			Thousands of Dollars	Thousands of Dollars	f Dollars
Line	Program Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/69 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	S AMENDED 6 FY 1989 C
28	03051541	Airborne Reconnaissance Support Program	ĸ		87,100		98,561	98,561 U
61	03051591	Defense Reconnaissance Support Activities	ഗ	213,225	141,387	110,162	-71,956	38,206 U
	Intellige	Intelligence and Communications		213,225	228,487	110,162	26,605	136,767
Tota	1 Defense	Total Defense Support Project Office		213,225	228,487	110,162	26,605	136,767

Page D-18

## Defense Communications Agency FY 1989 R D T & E Program

Exhibit R-1

AMENDED e FY 1989 c 2,371 U 57,018 U S,691 U 18,534 U 9,785 U 1,883 U 60,264 U U E3E, 3 18,272 U 3,928 U 2,371 91,028 68,510 22,200 184,109 Date: February 1988 Thousands of Dollars FY 1989 Adjustment -6,714 -286 -6,880 1,341 6,363 -947 -227 66,400 -13,200 -4,321 -474 60,264 -4,795 48,119 FY 88/89 PRES BUDGET 17,193 2,657 26,995 2,657 63,898 12,405 10,732 104,228 4,402 2,110 22,593 135,990 2,541 2,541 10,616 8,373 84,019 FY 1988 49,457 15,573 2,067 61,715 5,000 3,574 68,782 16,511 20,085 175,427 10,200 2,088 2,088 27,706 22,037 647 FY 1987 10,293 70,236 647 4,760 26,535 104,266 31,295 Yet | Management Headquarters (Joint Tactical C3 Agency) C3 Interoperability (Joint Tactical C3 Agency) Appropriation: 0400 D Research Development Test & Eval Def Ag National Military Command System-Wide Support Support of the National Communications System Hinimum Essential Emergency Communications Network (MEECN) Long-Haul Communications (DCS) Command and Control Research Item Nomenclature WWWCCS Systems Engineer Advanced Technology Development Intelligence and Communications Total Defense Communications Agency CINC C2 Initiatives Island Sun Strategic Programs Tactical Programs 0305108K Program Element Number 0603734K 0302016K 0302019K 0303131K 0201135K 0303126K 0303127K 0208045K 0208298K Line 33 38 39 40 46 54

Page D-19

Defense Intelligence Agency FY 1989 R D T & E Program

Appropriation: 0400 D Research Development Test & Bval Def Ag

Line

R D T & E Program

Exhibit R-1

Date: February 1988

E A LO L Q		i	Thousands of Dollars			Thousands of Dollars	Dollars
Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 ADJUSTMENT	S AMENDED e FY 1989 C
0301301L	General Defense Intelligence Program	S					
03058841	Intelligence Planning & Review Activities	ស					

Intelligence and Communications

53

Total Defense Intelligence Agency

Page D-20

Joint Tactical C3 Agency FY 1989 R D T & E Program Appropriation: 0400 D Research Development Test & Eval Def Ag

Exhibit R-1

		THE STATE OF THE S				Date: February 1988	Date: Fet	Date: February 1988
•	100		į			Thousands of Dollars	Thousands of Dollars	Dollars
Line No	Line Element No Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 Adjustment	S AMENDED 6 FY 1989 C
45	45 02080450	C3 Interoperability (Joint Tactical C3 Agency)	4	55,216		65,419	-65.419	
47	02082980	Management Headquarters (Joint Tactical C3 Agency) (FY 87 and prior)	•	4,842		7,179	-7,179	
	Tactical Programs	Programs		60,058		72,598	-72,598	
Tota	l Joint Ta	Total Joint Tactical C3 Agency		850,09		72,598	-72,598	\$7 ato \$1 ato \$2 ato \$2 ato \$2 ato \$2 ato

Defense Logistics Agency FY 1989 R D T & E Program

Date: February 1988 Exhibit R-1 Appropriation: 0400 D Research Development Test & Eval Def Ag

			1				Thousands of Dollars	f Dollars
Line	Program Element Number	Item Nomenclature	Act	FY 1987	FY 1988	FY 88/89 PRES BUDGET FY 1989	FY 1989 AMENDED 6 ADJUSTMENT FY 1989 C	S AMENDED e FY 1989 c
79	79 06057118	Critical Technology Analysis	9	2,133	29,019	4,400		4,400 U
80	06058018	Defense Technical Information Center	<b>.</b>	19,912	19,792	29,444	-5,620	23.824 1
81	06058028	Information Analysis Centers	•	4,579	4,883	6,997	-1,797	5.200 11
98	07080118	Industrial Preparedness	•	5,359	8,326	10,800		10,800 U
	Defensevi	Defensewide Mission Support		31,983	62,020	51,641	-7,417	44,224
Total	1 Defense	Defense Logistics Agency		31,983	62,020	51,641	-7,417	44,224

Page D-22

# Uniformed Services University (USUHS) FY 1989 R D T & E Program

Date: February 1988

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Def Ag

AMENDED e FY 1989 C 2,070 U 2,070 2,070 Thousands of Dollars FY 1989 ADJUSTMENT -762 -762 FY 88/89 PRES BUDGET FY 1989 2,832 2,832 2,832 2,442 2,442 2,442 FY 1988 1,897 1,897 FY 1987 1,897 Act 2 0601101W In-House Laboratory Independent Research Total Uniformed Services University (USUHS) Item Nomenclature Technology Base Program Line Element No Number

Page D-23

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